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A STYLISTIC STUDY OF UTTARĀDHYAYANA SŪTRA MS. DATED 1591 A.D., IN THE MUSEUM AND PICTURE GALLERY, BARODA[1]

RAI ANANDA KRISHNA

The manuscript of Uttarādhyayana Sūtra, dated 1591 A. D., in the Baroda Museum is a land mark in the development of the Rājasthānī painting in its infancy, a much discussed issue during the recent years. The problem is whether this school originated in the pre-Akbar period or after that. Śrī Karl J. Khandalawala is an upholder of the later origin of this school[2].

Though dated in the latter part of Akbar's reign, the manuscript furnishes some interesting and important evidence to revise our opinions on the early history of Rājasthānī school, which can be ascertained from its varied stylistic traits, which were unfortunately not studied uptil now. The MS. is in the direct tradition of the earlier U.S[3]. MSS. painted in the pure Ap. style. However, two more illustrated MSS. have come to light showing a similar transitional stage in the sixteenth century, *viz.* the Pārśvanātha Vivahalu, dated 1576 A.D. in the Boston Museum of Art, U.S.A. (*See* Anand Krishna, *Ars Orientalis,* IV 1961 p. 368 ff. and an undated illustrated MS. of Bālagopāla Stuti in Śrī A. C. Nahta's collection, Bikaner (*See* M. R. Majmudar, Seth Kanhaiyālāl Poddār Abhinandan granth). Consequently, the illustrations continue to preserve certain obsolete mannerisms of the Ap. school. This tendency of preserving such out-of-date conventions is also seen in other Jain MSS. of even much later period. Therefore U. S. 1591 is no exception to the general practice. For example, even MSS. dating as late as 17th century retain the 'farther eye' which I found in one of the MSS. in Narsinghji Jñāna Bhaṇḍār collection at Baroda, (Pl. V, Fig. 3). Similarly, the Ap. tradition is evident in the treatment of hills,clouds, water, trees,etc On the other hand, to quote Dr. Brown, the illustrations now show a wider. range and "greater amount of originality in treating scenes"[4].

However, the continuation of Ap. tradition does not actually mean the continuation of Ap. style. With the dropping of its angularity and the 'farther eye', Ap. style had already given way in favour of the Rājasthānī style.

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1 Published :—
W. N. Brown : MS. illustrations of Uttarādhyayana Sūtra.
K. J. Khandalawala ; Marg, Vol. 4, No. 3.
S. M. Nawab : Jain Citra Kalpadruma (Gujarati), Pls. LXXXIV-LXXXV, figs. 257-264.

2 Marg, Vol. 4, No. 3 ; *Bulletin of the Prince of Wales Museum,* No. 4, Marg, Rājasthānī number, 1958.

3 The explanation of this and other abbreviations used in this paper is given at the end of the paper.

4 W. N. Brown : MS. illustrations of U. S., P. 3.

It is only in certain areas or houses of painters that the survivals of Ap. style are perceptible even in later Rājasthānī paintings. This explains as to why the illustrations in U. S. 1591 belong mainly to the Rājasthānī school, barring a few exceptions.

However, the secular style seen in C. P. style paintings shows a great deal of advancement (infra), and therefore a comparison of these two styles helps us in arriving at certain more or less definite conclusions. We also know about the still earlier Rājasthānī traditions as shown by the Mṛigāvatī and other paintings, which developed into the C. P. Paintings, the U. S. 1591 or M.G.G. paintings.

(i) The illustrations of U. S. 1591 differ from the C. P. style in many respects. The former are descriptive in character and devoid of the lyrical qualities of the latter, with which also the M.G.G. illustrations are surcharged. (Pl. II ; Fig. 1).

(ii) The colour scheme of U. S. 1591 is limited to dull vermilion, pale, pale brown or rose complexions, restricted use of lapis lazuli, white, black (for outlines) and dull verdigri. The pallette is peculiar to the earliest stratum of Rājasthānī School as evinced by the illustrations of a Digambara Jain MS.published by the Prince of Wales Museum,Bombay;[5] a profusely illustrated copy of Mṛigāvatī in Bhārat Kalā Bhavan, Banaras, a number of Jain MSS. from the 16th to the 18th centuries *e.g.* D.V.S.S., D.V.S.S. 1583; (Pl. I, Figs. 1 and 2) and M.G.G. (Actually a few other documents have been discovered in the recent years, which show a gradual development in the regional style to which U.S. 1591 belongs. Also see Anand Krishna, Mārg, Rājasthānī number and Anand Krishna, Ars Orientalis, Op.cit.) Some of the above peculiarities appear in the early 17th century Rājasthānī paintings *e. g.* the rose complexions in K.R.C. 1606. Monochrome dull vermilion background is a special feature of this group of illustrations including B.G.S. illustrations and is omnipresent in U.S. 1591.

(iii) In U. S. 1591 illustrations, the scenes are in most cases divided into two or more registers, a device borrowed from its prototypes in the Ap. style and which, as observed by Dr. Brown[6] does not actually mean higher or lower planes.

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5 B. P. W. M. No. 4 (1953—54).

6 Brown : Miniature paintings of Kalpasūtra, p. 14.

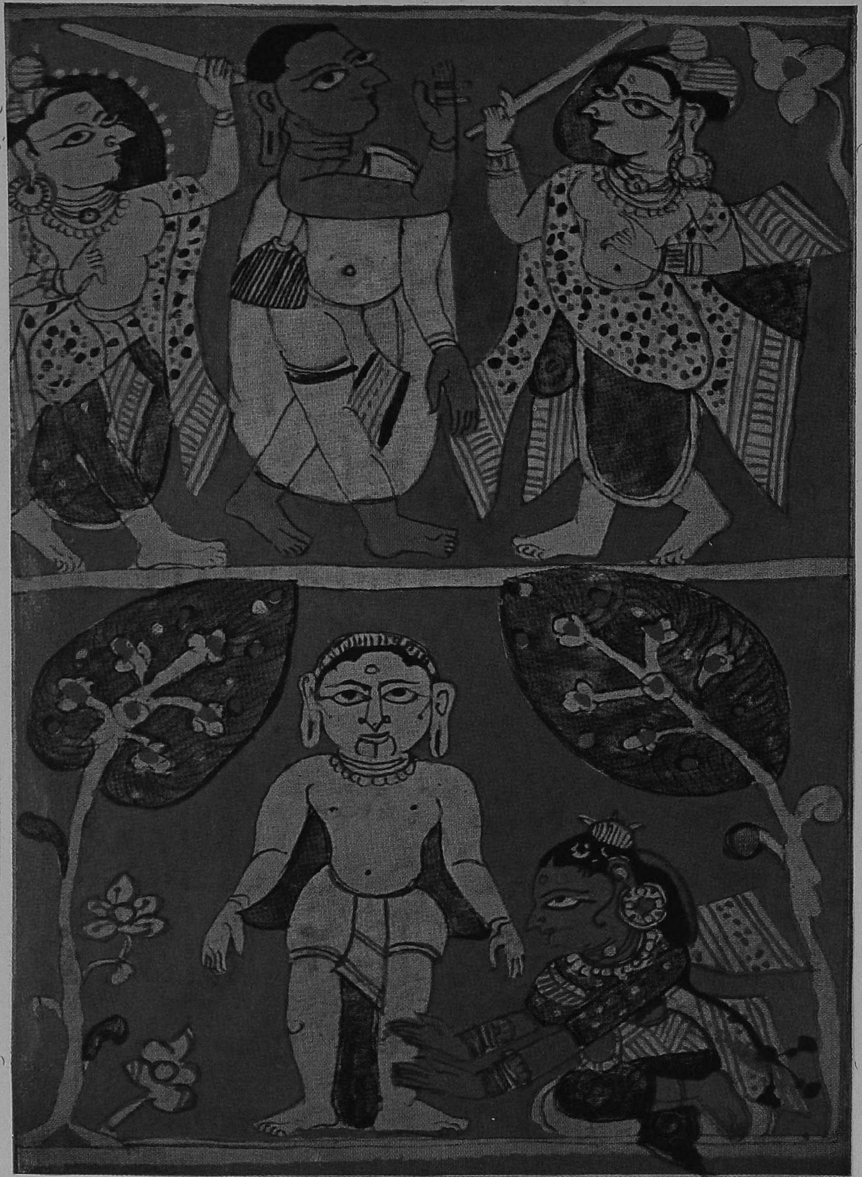

Illustration to Uttarādhyayan Sūtra Ms. dated 1591 A.D.

(iv) The facial features of the figures in U.S. 1591 belong to a quite distinct type much akin to the type occurring in D.V.S.S., D.V.S.S. 1583 (Pl. 1, figs. 1, 2), M.G.G. and J.B.H. 1610[7]. Very similar is the facial type which occurs in the hitherto unpublished illustrations of a Bhāgavata MS. dated 1598 A.D. in the collection of H.H. the Maharaja of Jaipur. A very similar mutilated and illustrated copy of the Bhāgavata Purāṇa has recently been acquired by Bhārat Kalā Bhavan, Banāras. In all the above groups, the human figures are, as a rule, drawn as youthful and no effort is made to show the age distinction. For example, in the story of Mṛigaputra, no distinction of age is shown between him and his mother[8]. (Pl. III, fig. 2).

In all the above MSS., generally the faces are shown in profile but in U.S. 1591, the old Ap. types of faces *i.e.* a little more than strict profile (*Sāvacasma*) with protruding farther 'eye' are found in some exceptional cases (Pl. IV ; Fig. 2 and colour Pl. A.)[9]. However, in this particular case, the farther eye of the female figure is reduced to almost a pin-point which shows the gradual process of its elimination (Pl. III, Fig. 4).

The profile faces form a class by themselves but certain Ap. style angularities persist in them. For example, we find survivals of Ap. school in pointed, hooked and long noses, pointed double chins, close tight lips (shown by a suggestive drawing), elongated ears (which are never seen after the advent of the Mughals and are therefore reminiscent of ancient tradition).

The eyes belong to a special class, they are big in proportion,[10] with their upper contour line quite straight and the lower contour making a broad curve joins the farther end of the upper line, sometimes ending into the " Collyrium line ", of the tradition.[11] Exactly similar eye-type is seen in M.G.G. (Pl. II, Figs. 1, 2) and D.V.S.S. and D.V.S.S. 1583, (Pl. I, Figs. 1, 2).

The head is flat and supported by a big forehead. In a few cases, traces of farther fore-heads are also visible (Pl. V, Fig. 1)[12]

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7 J. I. S. O. A. X (1942).

8 Brown : Manuscript illustrations of Uttarādhyayana Sūtra, Fig. 71.

9 Also fig. 28 of above. However, these seem to be the only two examples of the Ap. type of faces.

10 Cf. fig. 140 of MS. illustrations to U. S., the central figure in the lower register.

11 Cf. fig. 74 of MS. illustrations of U. S., by Brown.

12 Also Cf. figs. 41 and 46 of the above.

The hands are generally raised upwards *i. e.* in a posture of explanation which is directly borrowed from early Indian art through Ap. paintings. This posture of hands is comparable to the one found in D.V.S.S. and M.G.G. (Pl. IV, Fig. 1, Pl. I, Fig. 1, and Pl. II, Fig. 1) and in J.B.D. 1610[13]. This mannerism is gradually given up in the 17th century paintings.

The pig-tail of one of the female figures is knotted in the same fashion, which was generally followed in the Ap. illustrations during 15th – 16th centuries (Pl. III, Fig. 4) but loose hair is rarely seen in the MS. except only in two cases *viz.* in the scene of Samudrapāla's tonsure where it is drawn in a typical way, the lines depicting hair resemble scratches made by steel pen (Pl. VII ; Fig. 3)[14]. This type of representation of hair is not at all seen in the Ap. style in which the loose hair is shown with fine sensitive lines or symbolically represented[15]. However in L.P.L.P. and M.G.G. (Pl. VII, Figs. 1 and 2) we meet with exactly similar representation of loose hair.

The costume type used in U.S. 1591 is very interesting and shows the transitional stage of these illustrations. The diaphanous drapery peculiar to C. P. style and also a common feature of Mughal paintings since Akbar period is unknown to U.S. 1591. This fact points to either a remoteness from the C. P. style in time or in place or to poor workmanship.

The transitional stage of the style is also revealed in the types of costumes as detailed below :—

(a) The Jinas, Arhats and monks are always shown in their old Ap. style costumes. The monks and nuns are dressed in white robes prescribed by the Śvetāmbara canons.

(b) The laity represents the different types of garments used in that period.

The male dress shows two types — the old-fashioned and contemporary. The demi-gods wear the old-fashioned dress derived from their earlier prototypes and consisting of a coronet, *dhotīs* printed with medieval designs[16] and with fluttering ends — a mannerism borrowed from the Ap. school. Similarly, the ends of scarfs are also shown fluttering in the air. Yet, the representation of the scarf in the case of

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13 Cf. Mārg. Vol. 4, No. 3, Fig. 8.

14 Also Cf. Fig. 82 Brown's MS. illustrations of U.S.

15 Cf. Figs. 157, 208 and 147, 153 of Jain miniature paintings in Western India by Dr. Motichandra

16 For similar patterns on cloths, Cf.Figs. 209 ff. of Jain miniature paintings in Western India by Dr. Motichandra.

a standing male figure closely resembles the pointed ends of the *Chākdār Jāmā* of the Akbar period (Pl. I, Fig. 3, Pl. V, Fig. 1, Pl. VII, Fig. 3)[17].

But the most popular pattern on the scarf is the chevron running throughout its breadth, though other patterns like dotted chintz are also found (Pl. IV, Fig. 2)[18]. Such patterns also appear in D.V.S.S. and D.V.S.S. 1583 (Pl. I, Fig. 1, Pl. IV, Fig. 1 and Pl. I, Fig. 2).

The *paṭakās* (sashes) shown in the MS. do not follow the style either of the Akbari paintings or of the Laud Rāgamālā where they are much longer and thinner and show quite distinct geometrical patterns on them. On the contrary, they are quite small in length and broader in size (Pl. IV, Fig. 2), depicted in style typical to the 16th century, and having their ends in triangular shapes. The geometrical designs of Akbari sashes are unknown to them and usually the same set of patterns as used in other male costumes is popular in the sashes. This type of sashes is very popular in Ap. paintings at least in its paper period[19].

In Pl. IV, Fig. 2 even a monk is shown wearing a sash which goes to prove its popularity in the period. A long sash with a typical knot is put on by a retainer in an exceptional case[20]. However, the entire costume of that figure is taken from the Akbari type, and that the figures in D.V.S.S. and D.V.S.S. 1583 (Pl. I, Figs. 1 and 2) and M.G.G. (Pl. II, Figs. 1, 2) invariably show the Akbari style of sashes with its typical huge knot.

The laity is shown wearing a different type of drapery, with the well-known Aṭapaṭī type of turban of the Akbar period as a universal feature. It is a small flat turban which leaves the hind portion of the head bare. We do not meet in this MS. with a single case of *Kulahadār* turban, universally seen in C. P. style. As mentioned earlier, U.S. 1591 has a tendency to preserve old, antiquated and obsolete mannerisms not only in drapery but also in other details. The absence of *Kulahadār* turbans can, therefore, only be explained by the fact that in 1591 A.D., people had absolutely stopped

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17 Also Cf. Figs. 41 and 52 of Brown's MS. illustrations to U. S.

18 Also Cf. Fig. 41 of above.

19 Cf. Figs. 77, 80, etc., of Brown's M.S. illustrations of U. S.

20 Cf. Fig. 74 of above.

using it and it was totally replaced by the Aṭapaṭī turban[21], at least in the Gujarat region as is substantiated by other documents found from Gujarat (op. cit). The treatment of a longer skirt is a little more naturalistic than the pointed *ghāgharās* used in Ap. paintings of the first half of the 16th century.

The *cholīs* as shown in the illustrations are not open on the sides as in certain other regional paintings of this period[22]. Similarly, unlike the Ap. paintings of the early decades of the 16th century, the *Oḍhanī* (scarf or wrapper) is not placed on the knot of hair at the hind part of the head[23] (Pl. IV, Fig. 1).

Again, the chess-pattern on the drapery and the upholstry alike is never shown and similarly cylindrical ear-ornament used in the C. P. style seems to have been not popular among the Gujarat people in the 16th century. Instead, we find in these illustrations, big ear-ring (*Karṇa-Phula*) typical of the 15th-16th century Ap. illustrations and also of the M.G.G. (Pl. II, Figs. 1, 2).

No use of nose-ring (*natha*) is ever found in these illustrations, although in the 17th century, it seems to have gained an unrivalled popularity, as also seen in one of the sets of Bālagopāl-stuti illustrations, now in the Prince of Wales Museum[24], datable in the early 17th century (Pl. V, Fig. 4). Similarly, the nose-ring is not known to the M.G.G., D.V.S.S. 1583, or J.B.D. 1610[25], and therefore it is proved that it came into vogue not prior to the early 17th century A.D.

(v) *The background* .—The scenes are generally laid against plain, dull vermilion background or against architectural settings in a few cases ; foliage is rare[26]. To quote Basil Gray : " a few trees and the spray type of foliage are found in this MS., the latter in fully developed

21 The study of Akbari paintings also supports this conjecture. Of nearly a thousand known specimens of this group, not even one depicits the *Kulahadār* turban. Even portraits and other historical illustrations of the Akbar period, do not show a specimen of *Kulahadār* turban. Also, the artists coming from Kashmir, Gwaliar and Gujarat in the Royal Atelier have not depicted it even in the imaginary compositions. They are also absent in the Razm nāmā paintings which depict old tradition to a great extent. As the Akbari paintings do not leave any phase of contemporary life untouched, the total absence of the *Kulahadār* turban in these paintings bespeaks of its extinction since that period. Therefore, the Rājasthānī paintings showing *Kulahadār* turbans e. g., BKBM and C. P. style paintings should be ascribed to a period with its upper limit in Akbar period (Cf. Karl Khandalawala: Bulletin of P. W. M., Bombay No. 4, PP. 8, 9, 24, 50 for a contrary view of the ascription of similar paintings to 1620-30, as they show definite advancement over JBH 1620).

22 Cf. Kalā Nidhi Nos. 3-6 ; Khandalawala and Stooke : *Laud* Rāgmālā Miniatures Pls. 1, 3, 6 etc. Dr. Motichandra : Kalā Nidhi No. 1 (Dakkhinī Kalam ; Bijāpur Shāhī) Khandalawala: Mārg. Vol. VI, No. 4 and also the C. P. style for *cholīs* open on the sides.

23 Cf. Rai Krishnadas, "An illustrated MS. of Laurchanda in the Bhārat Kalā Bhavan, Banāras", Lalit Kalā Nos. 1-2, Figs. 1-4 and coloured plate.

24 Dr. M. R. Majmudar, JISOA X.

25 Mārg, Vol. IV, No. 3, Fig. 8.

26 Khandalawala: Mārg, Vol. IV, No. 3, P. 17.

form[27]" (Pl. II, Fig. 4)[28]. The following varieties of trees occur in this MS. :—

(a) Tall-trunked, full grown trees are shown crowned by thick bunches of leaves. The branches and twigs appear within the foliage quite prominently and are intervened with rosettes forming a pattern and thus belong to the Rājasthānī conventions. On the other hand, the bent trunks are reminiscent of the Ap. tradition (Pl. IV. Fig. 2; cp. Pl. I, Fig. 1 also.)[29]. The tree type in Pl. IV, Fig. 2, shows great affinity to Ap. style *e. g.*, (a) The two trees on the two sides bend towards the centre of the scene, (b) Foliage is oval, (c) Trunks are pruned[30], (d) Rosettes of earlier type appear within the foliage and the tree itself looks like a floral design.

Similarly, the trees are invariably placed at the sides of a scene in the old Ap. tradition, while the central portion of it is left vacant where figures appear (Pl. I, Fig. 1), which is different in form from the Vaishṇavite illustrations of the same period *e. g.*, another set of Bālagopāl stuti[31] divided between the Prince of Wales Museum, Bombay, and the Museum and Picture Gallery, Baroda, (Pl. II, Fig. 3), from K.R.C. 1606, J.B.D. 1610 and the M.G.G. (Pl. II, Figs. 1-2). To this list may be added the Vasanta Vilāsa illustrations now in the Freer Art Gallery, Washington.

Pl. II, Fig. 4 shows a shrub generally known as " spray " type [32] which is a definite characteristic of the Rājasthānī school and is never found in the old Ap. illustrations.

The " spray " type plays an important role in M.G.G. (Pl. II, Figs. 1, 2) and J.B.D. 1610[33], as it occupies the background almost completely, leaving very little open space for the horizon. The " spray " type in such exuberence is almost unknown in U. S. 1591[34], with only one exception (Pl. V, Fig. 2). Similarly, the bees

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27 Art of India and Pakistan, P. 90.

28 Also, Cp. figs. 133, 140 of Brown's MS. illustrations to U. S.

29 Also Cp. fig. 33 of Brown's MS. illustrations to U. S.; Fig. 64 of Gujarāti painting in the 16th century by N. C. Mehta.

30 For similar treatment of tree, F.V.V. 1451, Cp. Figs. 26, 27, 36 etc.; of Gujarātī painting in 16th century by N.C. Mehta. Also found in the Sultanate illustrations of 15th-16th centuries.

31 This is clearly datable in the last decades of 16th century. Published in JISOA, X, Pl. VI, Mārg, Vol. IV, No. 3, Figs. B. C.

32 Also shown in Figs. 74, 133, 140 of Brown's Ms. illustrations to U. S. However, a pigeon perched on a tree in Fig. 140 has a broad elaborate tail reminiscent of the Ap. school.

33 Mārg. Vol. IV, No. 3, Fig. 8.

34 Basil Gray : Art of India and Pakistan, P. 90.

which play a very important part in the Vaishṇavite and secular illustrations *e. g.* F.V.V. 1451 and M.G.G. (Pl. II, Figs. 1, 2) are conspicuous by their absence in U.S. 1591 even in cases of lyrical scenes.

(b) Sometimes the scenes are laid against a hilly ground (Pl. VI, Fig. 1 ; Pl. VIII, Fig. 2)[35]. The treatment of hills in U. S. 1591 is radically different from the Ap. tradition, which usually shows peaks arranged in a line or heaped together without any sense of composition. These peaks themselves consist of several contours of different colours which sometimes give an impression of a flamed fire (Pl. I, Fig. 2)[36]. Such treatment of hills is known to the Rājasthānī illustrations of the Pre-Akbar period. Plate VIII, Fig. 2 shows the survival of the same.

On the other hand, the U. S. 1591 illustrations show a great deal of progress in this direction, the boulders are rounded off in order to give a naturalistic effect.

As a rule, the scenes are laid against plain vermilion ground, sometimes crowned with a sky suggested by stray clouds, depicted by a thick band of white, intervened by deep red lines. These and similar devices are common properties both of Ap.[37] and early Mewār schools.

(c) In some examples, we come across architectural settings. Among these, the Jain sanctuaries belong to the old Ap. type with typical Śikharas over the *Gabhārā* and a domed antechamber. The pillars are slim and the brackets most humble in contradiction with the highly elaborate brackets of the Akbari architecture.

The most striking feature of this architecture is their arches which are quite distinct from the Akbari type in their short span and acute curves. Such typical arches are known to late Ap.[38] and pre-Akbar Rājasthānī paintings of B.K.B.M. However, highly decorative and multifoiled arch [39] of the old Ap. type is unknown to U. S. 1591.

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35 Also Cp. Figs. 46, 74, 85, 92, 133 of Brown's MS. illustrations to U. S.

36 Also Cp. Figs. 33, 38, 61, 68, 83 of Brown's miniature paintings of Kalpasūtra.

37 Brown : Miniature paintings of Jain Kalpasūtra Fig. 152. Coomārswāmy : Catalogue of Indian Collections, Museum of Fine Arts, Bostan, Pls. VII-IX. Dr. Motichandra : Jain miniature paintings in Western India Figs. 43-45, 59-82, 99-161, 164, etc., etc.

38 Cp. Fig. 32 of Brown's MS. illustrations of U. S.

39 Ibid. Figs. 35, 45, 51 ; Fig. 22 of Story of Kālaka and Figs. 20 and 4 of miniature paintings of Jain Kalpasūtra by Brown.

The secular architecture with similar pillars is seen here and there in the illustrations (Pl. III, Figs. 2 and 4 ; Pl. IV, Fig. 1 ; Pl. VI, Fig. 4)[40], but in some cases, the above-mentioned simple brackets are replaced by elaborate and enormous types[41]. Yet, we find that the latter are far removed in style from the typical Akbari brackets as used in Agra or Fatehpur Sikri. On the other hand, the brackets used in U. S. 1591 are too elongated and elephant-shaped. Such brackets are also found in D.V.S.S. (Pl. VI, Fig. 4).

The domes, though rare, are semi-circular *i. e.* typical of Gujarat Rājasthān architecture in this period. These, therefore, differ radically from the bulbous domes of the Akbar period. These domes are usually crown kiosks.

Lotus chevron pattern, which is an important feature of the C. P. style survives in the friezes of the U. S. 1591 (Pl. III, Fig. 2 ; Pl. VII, Fig. 3)[42]. The same pattern is again used on the pedestals (Pl. II Fig. 4 ; Pl. VII, Fig. 4)[43] and once on the back of the seat[44].

In some cases, fortified towns are represented in a semi-circular shape as if depicted in aerial perspective. These strictly confirm to their A. P. Proto-types in the Kālaka-Kathā illustrations[45].

Pl. VI, Fig. 2 depicts the grand pillars of the main gate exactly similar to those found in Akbari illustrations[46], except that the empty space in between the pillars is filled by a medieval design.

The battlements are longer, elliptical and more decorative in form than those of the Akbar period (Pl. VI, Fig. 2 ; Pl. VII, Fig. 3).[47] Thus, we find one more instance of the survival of an obsolete formula in U. S. 1591.

The brick-lined ponds also show the same type of treatment of aerial perspective—a mannerism handed down from Ap. illustration[48].

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40 Also Cp. Figs. 70, 85, 143 of Brown's MS. illustrations to U. S.

41 For prototypes, Cp. the illustrated MS. of Supasanahacariyam (dated 1423 A. D.) painted in Mewār and published in Āchārya Vijaya Vallabha Smāraka Grantha by S. M. Nawāb. Also, the Laur Canda illustrations in the Bhārat Kalā Bhavan (Lalita Kalā Nos. 1-2).

42 Also Cp. Figs. 70, 75, 95 of Brown's MS. illustrations to U. S.

43 Also Cp. Figs. 122, 126, 131, 135, 140, 144 of Ibid.

44 Fig. 113 of Ibid.

45 Brown : Story of Kālaka, Fig. 16. Miniature paintings of Jain Kalpastūtra, Fig. 13.

46 Die Indischen Miniaturen des Hamzā Romanes, Figs. 38, 41. Also Dr. Motichandra, op. cit. Fig. 178.

47 Also Cf. Figs. 70, 75, 85, 95 and 143 of MS. illustrations of U. S., by Norman Brown. Such battlements are also known to the Ap. 'Paper-period'. Cf. Dr. Motichandra, Ibid, Figs. 178, 181.

48 Cf. Figs. 122, 123 of Brown's MS. illustrations of U. S.

Usually, the 'mat-pattern' formula is used in water-treatment (Pl. VI ; Fig. 2)[49] but in some cases, a plain sheet of grey colour, intervened with stylised fishes darting to and fro serves the purpose (Pl. VI, Fig. 3)[50].

The U. S. 1591 shows only small varieties of furniture. In many cases, the figures are shown seated on stools, (Pl. III, Figs. 2 and 4)[51] or backed seats (Pl. III, Fig. 1)[52] the legs and other component parts of which have characteristic medieval designs. We also come across *Sthāpanāchāryas* at times.

Sometimes, rolled up curtains (made of typical medieval prints and intervened with hanging chowries ; Pl. VIII, Fig. 1)[53] which are also known to Ap. paintings appear in the rooms.

Pl. III, Fig. 1 shows two aerial cars which closely resemble in designs and shape to chariots in one of the illustrations to a Bhāgavata set in the C. P. style (Pl. III, Fig. 3).

Conclusion

The illustrations of the U. S. 1591 furnish a fixed point for its early history, and also depict a transitional stage with certain obsolete mannerisms of Ap. school, side by side with those of the Rājasthānī school of the pre-Akbari period as known only from a few sources *e. g.* B.K.B.M. It can safely be concluded that such characteristics found in U.S. 1591 as are not known in the Ap. as well as later Rājasthānī school, certainly belong to the pre-Akbar phase of the Rājasthānī school.

Similarly this MS. helps us a great deal in fixing the date of the C. P. style at least in the first decades of Akbar period, if not anterior to it. The reasons for this have already been shown in great details in the text.

The MS. does not seem to be a sporadic example, as we find two illustrated MSS. of Sangrahaṇī Sūtra in the collection of Dayāvimalji Jain Jñān Bhaṇḍār both belonging to the same period and one of them also dated (1583 A. D.). Both of these share several mannerisms with the U. S. 1591. But there is

49 Also Cf. Figs. 45, 46, 122, 123 of Brown's MS. illustrations of U. S.
50 Also Cf. Fig. 82 of Ibid.
51 Also Cf. Figs. 76, 74, 113 of Ibid.
52 Also Cf. Figs. 75, 95, 108 of Brown's MS. illustrations to U.S.
53 Also Cf. Figs. 60, 74, 75, 103 of Brown's MS. illustrations to U.S. 1591.

one exception *viz.*, the "farther eye" is completely unknown to them. On the other hand, the B.G.G. in Seth Agarchand Nāhtā's collection, presumably of the same period shows several instances of the 'farther-eye'. The occurrence of the Rājasthānī type of profile faces leaves no doubt about its existence even before 1591 A. D. which is evidently proved by recent discoveries including the illustrated MS. of the Mahāpurāṇa, painted at Palam (Delhi) in 1539 A. D.[54]. It is obvious that the exactly same profile facial type has been used in the two MSS., showing a direct relationship existing between the two. Therefore, Śrī Khandalawala's view as cited in the beginning, cannot be accepted in the light of the new discoveries and the internal evidence as described in detail above.

Abbreviations used in this article

Ap.	=	Apabhraṁśa school, also known as Jain, Gujarati or W. Indian school.
B. G. S.	=	Bāla Gopāla Stūti, now divided between P.W.M. Bombay and Museum and Picture Gallery, Baroda, published by M. R. Majmudar, J.I.S.O.A.,X. (1942).
B. K. B. M.	=	Mṛgāvatī—illustrations, datable in the mid-sixteenth century, in Bhārat Kalā Bhavan, Banāras.
B. P. W. M.	=	Bulletin of the Prince of Wales Museum, Bombay.
C. P.	=	The Caura - Pañcāsikā paintings in N. C. Mehta Collection, Bombay.
F. V. V. 1451	=	Vasanta Vilāsa illustrations, dated 1451 A. D., in the Freer Art Gallery, Washington.
J. B. D. 1610	=	Illustrated Bhāgavata (Daśamaskandha) MS., dated 1610 A. D. in the Sardār Museum, Jodhpur, *vide* M. R. Majmudar, Lalitkalā, No. 8.
K. R. C. 1606	=	The Rāgmālā set mostly in Gopī Krishṇa Kanoria Collection, Calcutta, painted at Cavanda (Mewār) in 1606 A. D.
L. P. L. P.	=	The Laur — Canda illustrations divided between the Lahore and the Patiala Museums (in the C. P. style) Supra.

54 Khandalawala, Mārg, Rājasthānī number, 1958.

M. G. G.	=	The Gīta Govind illustrations in the collection of Śrī N. C. Mehta of Bombay, published JISOAX (1942), Mārg 4, 3.
D. V. S. S.	=	The undated illustrated MS. of Sangrahaṇī Sūtra in the collection of Dayāvimalji Jain Jñāna Bhanḍār in Devshā's Pāḍā, Ahmedabad ; but safely datable to the second half of the sixteenth century (hitherto unpublished).
D. V. S. S. 1583	=	Another illustrated MS. of Sangrahaṇī Sūtra dated 1583 A.D. in the same collection (hitherto unpublished).
P. W. M. G. G.	=	The ten Gīta Govinda illustrations of the C. P. style (sūpra) in the Prince of Wales Museum, Bombay, Bulletin of the Museum, No. 4 (1953-54).
U. S. 1591	=	The illustrated MS. of Uttarādhyayana Sūtra, dated 1591 A. D. (Samvat 1647) in the Museum and Picture Gallery, Baroda.

TWO MANUSCRIPTS ILLUSTRATED IN THE WESTERN INDIAN STYLE DURING HĪRAVIJAYA SURI'S TIME — ABHIDHĀNA-NĀMĀMALĀ AND UTTARĀDHYAYAN SŪTRA

M. R. Majmudar

I

Hemchandra Āchārya (1089-1173 A.D.) the author of *Abhidhāna Chintāmaṇi* was a poet,saint,politician and one of the most versatile of Indian scholars hailing from Western India. He was the literary adviser of the Solanki kings Siddharāja Jayasiṁha (1093-1143 A.D.) and the spiritual preceptor of his nephew Kumārapāla (1143-1173 A.D.).

When Jayasiṁha conquered Mālwā, Aṇahil-Pāṭan was already on its way to become a great centre of learning, as well as the seat of an empire. Hemchandra stood out at this critical hour as the most erudite of the Jaina Sādhus in Pāṭan. Jayasiṁha united North and South Gujarāt, annexed Saurāṣṭra, Kachha and Mālwā, and carried his conquering arms to Ajmer in the north, Kolhapur in the south and Mohobaka (modern Mahobā) in Bundelkhand in the east.

Siddharāja who was a great builder, tried to vie with Bhoja also in munificence, and desired to acquire for Pāṭan an all-India reputation as a seat of culture by diverting to it the wealth, art and literature for which Ujjayinī and Dhāra had become famous.

He was jealous of the glory of Bhoja and of the literary reputation of his court. He brought the library of Bhoja to Pāṭan; and inspired Hemachandra to write a Sanskrit grammar and emulate Bhoja. The king procured for the scholar the then available grammars from different parts of the country.

This was the scholar's opportunity for which he had long been waiting. He compiled his famous text-book on Grammar, and associated his name with that of the monarch,and called it *Siddha-Haima*. The king got 300 copies made of it and sent them to all the kings of India. Twenty copies were sent to Kashmir, then considered the home of the Goddess of Learning.

The copies of Hemachandra's grammar were taken on elephant-back in a procession before they were installed in the Sarasvatī-Mandira, the State Library. The function was celebrated with great pomp and dignity. This

gave Hemachandra a reputation throughout India and set him on the carrier of a polymath in the footsteps of Bhoja, the Magnificent.

About 1137 A. D., Hemachandra came in intimate contact with Kumārapāla, a man of culture, then about fifty-two years old. As a possible success or of the heirless king Siddharāja, Kumārapāla came under his disfavour, and he had to leave Pāṭan and travel in southern and eastern countries at the advice of Hemachandra, who was said to have foretold his greatness.

This explains Kumārapāla's extreme reverence for Hemachandra and regard for the Jaina religion, especially for the doctrine of non-killing-*Ahiṁsā* ; so much so that he used his political power to suppress slaughter of animals, though not wholly, yet on certain days at least, sacred to the Jainas. He also built Jaina *Vihāras*.

Hemachandra was appointed court-poet, and he began to compose *Kumārapāla-charita* or *Dvāśraya Mahākāvya* in which he described the glories of his disciple-patron's dynasty while illustrating the rules of Sanskrit grammar, possibly inspired by a similar effort by poet Bhaṭṭi of the *Rāvaṇa-vadha*, who flourished at Valabhi (modern Valā in Saurāṣṭra) in 7th century A. D., which also illustrated rules of Sanskrit grammar.

Hemachandra's early training naturally made him look upon Prākritic studies as important and religious narrative literature as essential to his proselytising duties. His detailed treatment of Apabhraṁśa grammar and Prosody is the only work of its kind. He has preserved several quotations from the Apabhraṁśa literature of the earlier centuries. If these quotations are any indication, the literature of the time was mythological, religious, didactic, erotic and heroic. The elegant phrase and the pictureseque image so often found in these verses indicate a well-developed literature.

Hemachandra's was a versatile genius, and he was accordingly honoured with the title *Kali-kāla-Sarvajña*. He wrote or compiled works on Grammar, Lexicon, Prosody, Poetics, Logic, Epics, Legendary Biographies and miscellaneous Stotras. Many of his works are valuable compilations or borrowings from earlier works, and preserve for us the wealth of earlier learning now lost to us.

His *Deśīnāmamālā* is the largest collection of *Deśī* words known to modern Scholarship. His *Abhidhānachintāmaṇi Nāmamāla*, is a work of Sanskrit synonyms arranged in the style of the Amarakośa, divided into six sections called *Kāṇḍas*. (Pl. IX, Figs. 1 and 2). His *Anekārthanāmamālā* vesgi different meanings of a single word.

In the *Abhidhāna Chintāmaṇi Nāmamālā* while giving synonyms of Gods and Kings, Hemachandra seizes an opportunity to give the following set of epithets to his disciple and patron Kumārapāla : " कुमारपालनाम "।

कुमारपालश्चौलुक्यो राजर्षिः परमार्हतः ।
मृतस्वमोक्ता धर्मात्मा मारिव्यसनवारकः ॥

Six synonyms have been given for him ; *Chaulukya* refers to the dynasty of the King: *Rājarṣi* refers to one who was the most disciplined among kings : *Paramārhata* shows his learning and devotion to the greatest Adorable one, Mahāvīra Jina. *Mṛitasvamoktā* refers to Kumārpāla's most humane orders releasing the confiscation of property of persons who died intestate (without heirs), which till then used to revert to the State in absence of an heir. *Dharmātmā* denotes that his soul was alive to his duties. *Mārivya-sana–vāraka* describes him as one who banned the pastime of killing as in hunting.

Hemachandra died in 1173 A.D., six months before his royal patron Kumārapāla, who ruled justly and wisely for 30 years (1143–1173 A. D.) a long time indeed.

Sanskrit was to Hemachandra life itself, and the classical Kāvyas, Grammars and Poetics were the source of his inspiration.

Hemachandra gave his Jaina sect and the province of Gujarat a honourable status in the cultural life of India, and became, for his time, the greatest representative of scholastic learning of India.

II

Discovery of a dated MS. of Hemachandra's *Abhidhāna-Chintāmaṇi-Nāmamālā* with illustrations in the Western Indian style (since acquired for the Gujarātī Department, M. S. University of Baroda) is very important, as it is a rare painted MS. on a subject such as *Vocabulary,* the like of which is still not known in the history of Indian book–illustrations. The Sanskrit lexicon of Hemachandra is otherwise well-known to the scholar-world through printed texts.

It is also important in as much as it is a unique MS. of its type considered fit for illustration. The twenty-one illustrations given in this MS. incidentally remind us of the modern English Dictionaries like that of Webster's, which for the most part, illustrate rare and out-of-the-way objects for introducing them to the casual reader.

It has an additional interest which lies in the other circumstance that over and above the miniatures suggestive of the text, done in the Western Indian style of the latter half of the 16th century A. D. Introductory notes on words in Old Gujarātī prose are prefaced to the Sanskrit verses in *Anuṣṭup* metre. This suggests that there was a common popular dialect for the masses in Western India, which then included for cultural contacts Gujarāt, Rājputānā and Western Mālwā as well.

The MS. has a colophon which throws a flood of light by way of giving the day, month and year of the copy, the name of the scribe or the artist, the place and location and the person who was instrumental in going in for a *De Luxe* edition of the Sanskrit text for the purpose of presenting the same for study to an avowed student and disciple of the well-known Guru Heeravijaya Sūri.

The MS. was copied (and also painted) on the 5th of the bright half of the month Mārgaśirṣa in Samvat 1629 (1573 A. D.) at Nulāhī nagara (not identified) in Mālwā, for the purpose of providing study for Paṇḍit Devavijaya Gaṇi, the disciple of the revered Heeravijaya Sūri, the head Pontiff of the Tapāgaccha.* This MS. was got written (with illustrations) through Vastā by Sāha Bhojarāja, the son of Sāha Rupachanda and his wife Rupāḍe (vī) of the Kakariyā *gotra*, hailing from the senior branch of the 'Usavāla jñāti : The colophon reads as follows :—

इत्याचार्य श्री हेमचन्द्र विरचितायामभिधान चिंतामणि नाममालायां सामान्य काण्ड: षष्ठ: समाप्त: ॥छ॥ स्वस्तिश्री संवत १६२९ वर्षे मार्गशीर्ष सीतात् पंचम्यां तिथौ सोमवासरे। मालवदेशे श्रीमति नुलाहीनगरे लिखितं। श्रीमत्तपागच्छे भट्टारकचक्रचूडामणि। श्री५श्री हरिविजयसूरि शिष्य पंडित देवविजयगणि पठनार्थे। लिखापितं। श्रीउसवालज्ञातीय बृहद्शाखायां ककरिया गोत्रे। साहचांपाचांपलदेसुत। पुत्र साहरूपचंद। भार्यारूपादे तत्पुत्र। सहाभोजराजेनेदं श्रीनाममालापुस्तकं लिखाप्य समर्पितं। पंडित देवविजयस्य स्वश्रेयसे। वाच्यमानं चिरंजयतु। लेखक वस्ता लिखितं। लोकस्यनामसंयुक्त / ग्रंथाग्र ×णितं बुधै:। द्विसहस्राणि उपरी शतानि षट् प्रकीर्तित: ॥

The calligraphy of the MS. has retained the use of पृष्ठमात्रा the *mātrā* being prefixed to the letter by its left hand side, instead of placing it on the top. This style subsisted for a pretty early period.

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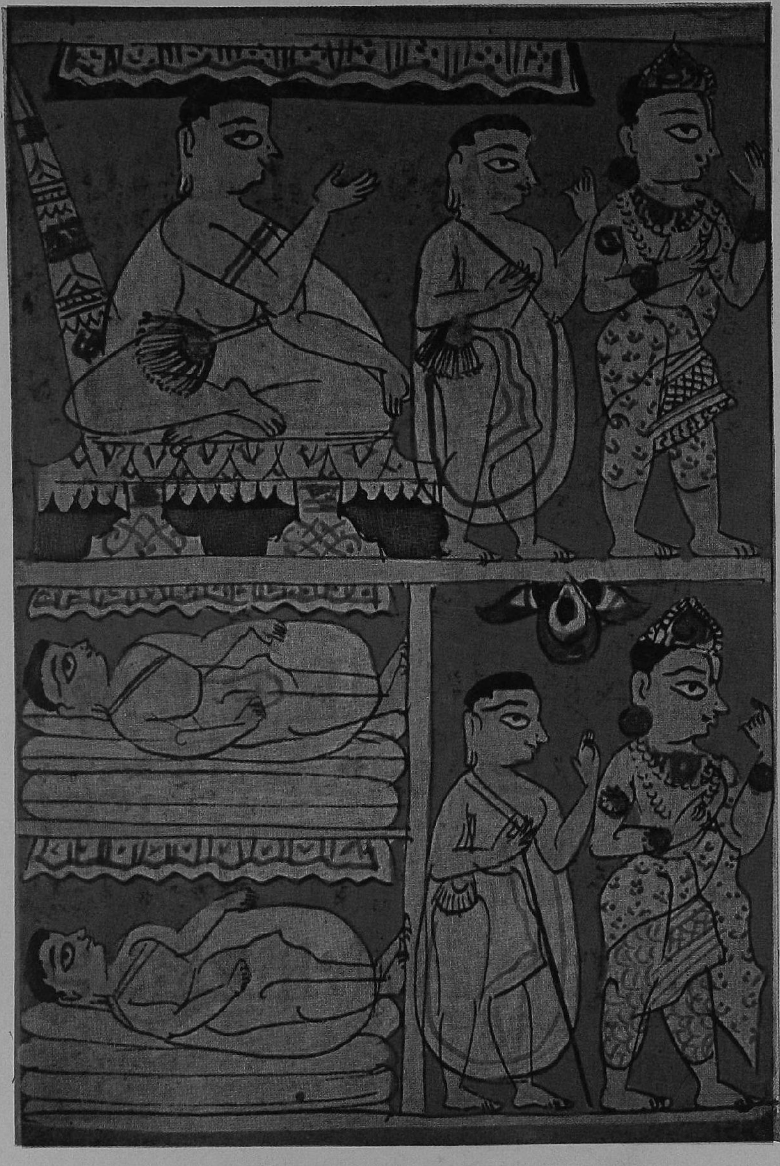
*Heeravijaya Sūri : Born at Pālhanpura in Samvat 1583 : *dīkṣā* in S. 1596 : *Paṇḍitapada* given at Nadulāi in S. 1607 : made *Vāchaka-Upādhyāya* in S. 1608 : given *Āchāryapada* at Sirohi in S. 1610 : became Head Pontiff of the *Tapāgaccha* in S. 1621 : accepted Meghaji *Ṛiṣi* of the Luṁpaka gaccha to his fold in S. 1628 when Akbar conquered Gujarāt in S. 1628-29 : (the year of copying *Abhidhānanāmamālā* Ms. Pl. XVII, Fig. 2).

Akbar founded his *Din-i-Ilāhi* in S. 1635 ; invited Heervijaya Sūri ('the Hariji Sura' of the *Ain-I-Akabari*) from Gujarāt to his *Ibādatkhānā* at Fatehpur Sikri in S. 1638: when Heeravijaya Sūri travelled from Cambay to port Gandhār in the Lāta Country (Broach District) : Went to Sikri in S. 1629 : was honoured as *Jagat-Guru* by Akbar : returned to Gujarāt in S. 1642 : died in S. 1652.



Kinds of carelessness (?); illustration to Uttarādhyayan Sūtra Ms. dated 1591 A.D.

The association of the illustrations with the Jaina Āchārya in the MS. is significant. The Āchārya had not reached the zenith of his fame in Samvat 1629, when the copy was prepared for his disciple Devavijaya.

Devavijaya Gaṇi, the disciple of Heeravijaya Sūri for whom the illustrated MS. copy of *Abhidhānanāmamāla* was got written at the hands of the scribe Vastā, and paid for by Sāha Bhojarāja for presenting the same to Devavijaya Gaṇi appears to be really worthy of the gift. Because this Devavijaya Gaṇi appears to be identical with the person who copied the dated illustrated paper MS. of *Uttarādhyayana Sūtra.* It is dated in Samvat 1647 (1591 A. D.) *i. e.* during the life-time of Heeravijaya Sūri as the head of the Tapāgaccha, and is in the collection of the Baroda Museum and Art Gallery. The colophon reads as under :—

इति निर्युक्ति गाथा । समाप्ता । संवत १६४७ वर्ष भाद्रवा शुदि तेरसि गुरूपुष्ये। तपागच्छे श्री हीरविजयसूरी राज्ये पं. देवविजयगणि लिखितं । (Pl. XVII, Fig. 1).

(*Vide,* my papers on 'Interesting Jaina Miniatures in the Baroda Art Gallery' : *Baroda State Museum Bulletin,* Vol. 4, Pt. 1-2, 1948).

The style of miniatures given in this MS. is, however, characteristic of the transition period when the three-quarters profile of the face had already given way to the strict profile of the Rājput style, wherein only one eye is shown. However, the persons in these illustrations seem to have the same predilection for coloured textiles with check and floral designs. (Pl. XVI, Figs. 2, 3 and 4 and colour Plate B). The treatment of trees, birds, the conventional cloud and other parafernalia is in continuation of the Western Indian or Gujarati Style.

Now, regarding the style of illustrations in this MS. of *Nāmamālā* : Faces in three-quarters profile, the other eye protruding beyond the facial line, pointed nose, circular ear-rings, the *mukuṭa* and printed drapery are some of the outstanding characteristics which are shared by the book-illustrations, both on palm and on paper from the 12th to the end of the 16th century A. D., executed not only in Western India but also in Mālwā, Madhya Pradeśa and even Burma.

The provenance of many MSS. illustrated in the cities of the rich plateau of Mālwā suggests a very interesting point of continuous cultural contacts which existed far beyond the geographical boundaries accepted for political history. It can be said that the cultures of Mālwā, Rājasthān, and Gujarāt share many things in common since early periods in history.

The illustrations include, a lotus and a *Palāśa* tree from the flower and tree group ; (Pl. XIII, Figs. 1, 2) ; A Putalikā (Pl. XII, Fig. 3) from toy group; a bitch (Pl. XIV, Fig. 2) ; an elephant (Pl. XIII, Fig. 3) ; an ox, (Pl.XIV, Fig. 1), a horse (Pl. XIV, Fig. 3); and a she-goat (Pl. XIV, Fig. 2) from the animal group ; and a mother with a child, (Pl. XV, Fig. 2), a warrior, (Pl. XII, Fig. 1) ; a teacher (Pl. XV, Fig. 1 possibly the popular portraiture of Hemachandra Āchārya) Dūtī (Pl. XI, Fig. 3), Paṇḍit (Pl. XI, Fig. 2) and a man in Vitarka Mudrā (Pl. XVI, Fig. 1) from the human group ; Names of gods and goddesses known in Hindu mythology like Brahmā, (Pl. X, Fig. 3) ; Sarasvatī, (Pl. XI, Fig. 1) ; Lakṣmī, (Pl. X, Fig. 2) ; Kṛishṇa (Govardhanadhārī), (Pl. X, Fig. 4); Kṛishṇa Vāsudeva (Pl. XI, Fig. 4 and colour Pl. C), Hanumān (Pl. X, Fig. 1) and Daśānana Rāvaṇa, (Pl. XII, Fig. 2) are also illustrated in the traditional manner by the artist.

These illustrations establish beyond doubt the secular nature of both, the subject-matter and the style of miniatures which flourished irrespective of the religious or sectarian bias.

From introductory words given at the beginning of several verses spread over various sections and sub-sections of this *Nāmamālā,* I am giving a few that are picked up at random just to give an idea about the popular language of the gloss :—

Words for objects in a kitchen and hearth :—

रसोडीया नाम । अन्नना कोठा नाम । सुंडलानाम । चालणी सूपडानाम । गागरी । हांडी नाम । करवडा नाम । पेटी नाम । वीजणा नाम । कांकसी । रवाइया । शगडी नाम ।

Words for flowers, fruits, trees, crops etc. :—

पोइणी नाम । चणूठीं नाम । कणइर । फूल वींटं नाम । जाइफल । कऊठ (कोठु) । ‘ साठीचोखा नाम – ‘ गर्भपाकी तु षष्टिक : ’। कणसडां (लां) कणिशं शस्य-शीर्षकं । अंकुरा-नाम ‘ स्यात् प्ररोहे ’ ।

Words for relations :—

भाणेज नाम । पीतराण नाम । पिता माता एकत्र नाम–पितरौ । एकठां पुरुष स्त्री नाम–जंपती दंपति जायापती भार्यापती समा : । अनेरी राणी भोगिनी ।

Words for parts of the body, toilet and dress :—

अंबोडा नाम धम्मिल । चोटली नाम । निलाड पूठि नाम । मुंठि । चपेटा । आंतर्डा नाम । चरणानाम–चलनक । पाटली । कछोटीं । कांचली । खाट पछेडी नाम । उसीसा ।

Krishṇa Vāsudeva—Illustration from Abhidhān Chintamaṇi Nāmamālā

Words for animals etc. :—

मकना हाथी नाम । हिंसक ढोर नाम । मींढी नाम । बोकडा नाम । मोटा बलद नाम । नाथ्या बलद नाम । पुछ्डा नाम । चाबखा नाम – चर्मदंडे कशा । रासडी नाम । पराणा–प्रतोदक : वाछ्डी धेनु–परेट्टु ।

Words for eatables :—

सातुया नाम । पृथुक । लाजा । दधिमंड–मांडा । पोलि । घेवर । मुंज्यानाम । मडथनोम । आछण नाम । ओसामण ।

Words for various uses : (miscellaneous) : —

उतावलीनाम । दिनांत नाम । तिरीछा नाम । योडा नाम । इच्छांगिकार नाम । अति रीसालु नाम । भूल्या नाम । थापणि नाम — निक्षेप : । खडीया नाम—मषीपात्रं । टालीया नाम । दुंदाला नाम । दूबला नाम । कूबडा नाम । हालिक—कुटुम्बी कर्षक : ।

Words for tools etc. :—

वांसुला । करवत । लोहघन । नरहणी । सराणीया । टोपनाम - शिरस्त्राण । सरूआ-स्त्रुव : । कातरणी.

Thus we have seen that dated non-Jaina and secular illustrated MSS. of the paper-period of Western Indian miniatures help to establish the prevalence of this pre-Rājput style much more definitely. The *Vasanta-Vilāsa* scroll painted in Samvat 1508 is too well-known. An illustrated MS. of *Mādhavānala Kathā* painted in Samvat 1551 at Pāṭan was noticed by me in Muniśrī Jinavijayaji's collection at Bhāratīya Vidyā Bhavan, Bombay. The MSS. of *Kākarutaśāstra* in the Atmārāmji Jñānmandir at Baroda is dated Samvat 1588. To this group may be added this MS. of *Abhidhānanāmamālā,* which is copied in Samvat 1629.

DWARFS FROM ŚĀMALĀJĪ IN BARODA MUSEUM

T. V. G. SASTRI, Baroda

Introduction

Dwarf is an enchanting artistic motif. It has been attempted by sculptors, painters and others, and has inspired their imagination in portraying their themes from times immemorial.

We come across this fascinating motif in most of the museums of the world. It is the representation of a peculiar species, different from children, mostly characterised by short stature, heavy flowing stomach, sometimes looking odd and sometimes funny. The Baroda Museum may be said to be fortunate in acquiring excellent specimens of these dwarfs, all of which reflect typical characteristic features of the sculpture of the Gupta period. All the six pieces selected from Śāmalājī, display the same motif. They are greenish schistose slabs and all of them seem to be worked out by the same craftsmen.[1]

Talking about the Indian sculpture in general, every art school has introduced a characteristic feature in the dwarf morphology. In the classical schools of art, Gāndhāra dwarfs are robust, nude and without elaboration. The Mathura dwarfs, though nude, have more proportionate limbs. Best examples of dwarf types come from Andhra school, in Kṛishṇā valley under the patronage of the *Śātavāhanās* and *Ikshvākus*. Six dwarf types[2] have been enumerated in all. They are shown from nudity to well-ornamented and clothed figures in several postures. These artists under the influence of Mahāyāna Buddhism, more precisely during Nāgārjuna's time, had slowly replaced earlier symbolic representations by human forms in the narrative, and the Jātaka scenes of the Buddha.

Later during Gupta period, the human form in general came to the forefront in the Indian sculpture. The animal and floral decorations typica, of Gāndhāra and Śuṅga were pushed altogether out of the narrative, and were used only as border decorations. Besides the typical folds of the drapery Gaṅgā-Yamunā motifs as guardian deities of shrine chambers, the bracket figures of Vṛikshikās, associated with dwarf attendants are typical features in the sculpture of this period.

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1 I am indebted to Dr. U. P. Shah in profusely making references in this article from his book on "Sculptures from Śāmalājī and Roḍā" published as the Bulletin of the Baroda Museum and Picture Gallery, Vol. XIII.

2 T. V. G. Sastri : Dwarf in the Indian sculpture – Arts Asiatiques : t : iiii fasc :

Among the selected dwarfs in Baroda museum, at least three important types are observed. The figure of Gaṇeśa and the icons of Kubera can be classed as *gods* or *godlings*. Secondly there is a *mythical type* identified as *dvārapāla*. The third is a *beautiful bracket figure* seated over the knees.

2. Find spot and history

Along with these six dwarfs, quite a good number of other figures were recovered from a ravine near Śāmalājī (North Gujarāt). The ravine is locally known as Devaliā Dharā (ravine of Gods). The sculptures were probably hidden by the local villagers to save them from destruction by Muslim iconoclasts. Through the valley of Śāmalājī, Devnīmorī flows the river *Meshvo*. On either side of the river, on the foot-hills some ruined temples are still seen. Dr. Goetz, Dr. Shah, and Śrī S. N. Chaudhary, identified several plinths of early temples near Khak chowk area, and *Hariś-chandranī chorī*. They were probably the extant portions of temples that were destroyed by iconoclasts.

3. Description and identification

No. 1 (Pl. XVIII, Fig. 1).

This is a beautiful piece of sculpture of standing Gaṇeśa in *Tribhaṅga*. He has two hands and usually such figures are considered to be earlier when compared with the bulk of the four-handed specimens. The elephantine head has a *prabhā-maṇḍala* behind showing his divine nature. A beaded decoration goes round the head. The ears are wide and folded on the top at the edges. The edges on either side are clipped to give a natural effect. The trunk is bent towards the left, as a gesture of giving protection to his child devotee, standing ignorantly beside him. The tooth is broken down. Two rows of small bells are seen round the neck. Hands are broken and the upper shoulders have an *uttarīya* (upper garment) that comes from behind and its one end is clearly seen with tassels below in the extreme right. His *Nāgayajñopavīta* is shown with its hood lifted up over the right shoulder. The contours of the chest and the stomach are gracefully executed. The *antarīya* (lower garment) is prominent with folds and central tassels. The legs are stout with anklets on them. The nude dwarfish devotee is excellently depicted probably with crossed and folded hands on the belly. His *Kaṭisūtra* (Waistband) and placing of the right leg behind his left, shows the childish nature of the devotee before a super human being.

Such figures of standing Gaṇeśa were found in Cambodia but they were assigned to a later date[1].

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1 La Statue de haneca de Rockefort-sur-mer-Arts Asiatiquos : t : iii : fasc : 3.

No. 2 (Pl. XVIII, Fig. 2).

This is a stout dwarfish figure without the head. He is in *Samabhaṅga* (straight). He wears a broad necklace and a string of bells in *yajñopavīta fashion.* He holds some objects in the hands but these cannot be made out. Dr. Shah identifies an *amṛita-ghaṭa* (Pot of nectar) in the left hand. The mutilated symbol in the right hand may be a sword or a *daṇḍa,* kept erect in an act of readiness. He appears more like a watcher on either side of the doorway. Thus he may be identified as *dvārapāla.* A similar *dvārapāla* was found in Vijayawada with a chain of bells as *yajñopavīta.* However, that figure is not dwarfish.

The tassels of the *uttarīya* are seen below at the extreme right. The *antarīya* is clearly seen below between the legs.

On the pedestal, two letters are inscribed. They were identified by Dr. Shah as *Vā Yu.* It appears that the two letters are hyphenated in between. The second letter appears more like *Pra* or *Pu* than *Yu.* Thus the word reads as *Va-Pra* or *VaPu.* They may also show the name of the sculptor. Autographing of the sculptors is quite common in sculpture.

The Yaksha statue from Parkham bears the inscription of *Kunika,* the sculptor, and his pupil *Gomitra.* The *parinirvāṇa* image of Buddha at Kasia has the name of the sculptor *Dinna.* A stupa slab at Ṅagarjunakonda has an inscription *Dha ma sa* (Dharma sa)[1] .

As Dr. Shah remarks, iconographically, the sculpture does not fit in to represent *Vāyu.* Vāyu is a vedic elemental deity along with *Sūrya* and *Agni.* According to *Śilpalakshaṇa,* he must have a *Simhāsana* or a *deer.* In the hands, he must have a *Kamaṇḍalu* and *dhvaja* (banner). In some texts, it is stated that he should hold *chakra* and *dhvaja*[2] . Since none of the features are observed, it may be said to represent a mere *dvārapāla.*

No. 3 (Pl. XIX, Fig. 1).

The standing dwarfish figure is broken at the legs and near the head on the right side. He is shown in *Karaṇḍa mukuṭa* (head-dress). The head-

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1 C. Sivaramamurthi — Indian Sculpture, Page 2— 3 ;

2 Mrugārūḍho vidhātayo sarvābharaṇa bhūsitah
Ekam Sadā gatissarva, vyāpakoyam samīraṇam
Purvākāraṇagama

Varam dhvajam patākāsha, kamaṇḍalu karair dadhat.
Mrugarūḍho haridvarṇah pavano vāyu dhi krutih
Rūpamaṇḍana

dress on the left side is attached to an off-set, ending at the shoulder of the left hand. The heavy *kuṇḍalas* on the ears make significant earlobes. The face has a peculiar smile. Ethnologically, the features of the dwarf types present an outside element. It may be Central-Asian or Hellenistic. The hands are made bow-like. He holds a *dagger* in the right and a *Śaṅkha* (conch) in the left hand. The stomach is peculiar to early Yaksha figures. Normally, *Śankha* is a very significant emblem of the *parivāras* (associates) of Kubera. Kubera has two dwarfish gaṇas *Śaṅkha Nidhi* and *Padma Nidhi*[1] with conch and lotus as their emblems. In Madras Museum, there are two figures from Kāverīpākkam identified as *Śaṇkha Nidhi* and *Padma Nidhi*. They are seated dwarf figures with conch and lotus in the hands[2]. At Nagarjunakonda, standing Nidhis are exquisitely depicted with conch and lotus on the heads that issue forth coins[3].

Thus, apart from the emblem in the right hand, from the conch in the left and terrific form he possesses, he may be identified as *Śaṅkha Nidhi*. Generally, iconographic texts give several emblems and details but the sculptors adopt only one or two characteristic features.

Nos. 4 and 5 (Pl. XIX, Figs. 2 and 4).

It appears these two icons are similar differing slightly in facial expression and the emblems they are holding in the hands. The posture of legs, hands, and other stylistic features are almost the same. Generally, the *prabhā-maṇḍala* at the back of the head is used for gods or godlings. The crowns, though similar, are slightly different. This difference is created for a change. The ears are peculiarly drawn out to show earlobes in one, and exquisite ornamentation in the other. No *uttarīya* is seen in the two figures. Some change is shown in *antarīya*.

Most important in the two icons are the ethnic features, emblems and dress. Dr. Goetz has identified them as having *Huṇa* traces in ethnic forms. The crowns, drapery and ethnic features may be identified for a northerner as given in iconographic texts. In No. 2, the right hand is broken, and the left may be said to have a pot. Kubera is represented with *ratnapātra* iconographically.[4] In No. 4, the right hand is having a human figure while the other hand is placed over the thigh. In showing the vehicles of Gods, they were variously adapted by the classical schools of art. In Bharhut,

1 Saṅkha padma nidhir dvou cha bhuta kāra mahā balan
Āsinau padma Pithethu, padma hartau dvijotaame.

2 C. Sivaramamurthi — Mirrors of Indian Culture.

3 T. V. G. Sastri : Two dwarf Yākshas from *Nagarjunakonda*. *Arts Asiatiques* in press

4 Ratna pātra dharam kuryāt vāmana ripu nishūdana
Gzdā sakticha kartavyā tasya dakshiṇa hastayoh.

an inscribed figure of Kubera is shown over the back of a nude dwarf. Sometimes, he is represented as being carried by a human being. Thus, the human figure in the right hand may be the vehicle by which the God can be identified. Thus, both the icons may be identified as Kubera.[1]

No. 6 (Pl. XIX, Fig. 3).

This dwarfish figure is seated on the knees. It is a beautiful piece with the trace of a smile in the face. The hair on the head is nicely combed and bifurcated at the centre. A flame-like mark is seen on the forehead. He has heavy *kuṇḍalas*. The *kaṇṭhahāra* round the neck has a space-bead or a talisman. The chest and the stomach show typical features of a dwarfish gaṇa.

From the position of posture of sitting and from broken hands, it may be inferred that the figure served as a *bracket* at the lintels. Such figures normally link up the capitals of the pillars with the cross-beams of the roof. They are nicely portrayed in cave No. 17 at Ajaṇṭā.

Dating of the icons

From the sculptural evidence the worship of the elephant-faced God may be said to have started sometime during late Gupta period[2]. Reference of this God is made no doubt, in the earliest literature, Ṛigveda and Bṛihatsamhitā. But the importance of this God must have been realised at the close of the Gupta period. Thus No. 1 must have been the earliest perfection of the elephant-headed God.

It has to be accepted that the *dvārapāla* is more popular in South India than in the North. However, in Western India, at least in sun temples, we have gate-keepers *Daṇda* and *Piṅgala* placed separately. Even in Gupta temples at Udaigiri, this motif is seen. One remarkable feature of No. 2, is the chain of bells on the body which finds a close parallel with the Vijayawada *dvārapāla* executed in superb workmanship. It belongs to 7th century A. D. If we take that it has taken a hundred years or more for its migration and perfection in Deccan, the dwarf *dvārapāla* may be dated to Gupta times. Separate *Nidhi* motifs have not been reported from Northern India. But the terrific features, the dwarfish nature, and the conch emblem in the left hand substantiates iconographically to *Śaṅkha Nidhi*. Earliest *Nidhi* motif preserved in Madras Museum belongs to 3rd century A. D. Allowing a

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1 Nara gakta vimanastam, gadā pāṇim varapradam
Mahodaram mahābāhum gauravarṇam manoharam
Silparatya samyojika

2 J. N. Banerjee — Development of Hindu Iconograph, page 354.

period for this motif to migrate to North, No. 2, can be conveniently dated to late Kshatrapa or early Gupta period.

Kubera is a popular God in Northern India. More often we see him well-proportioned than a dwarfish god. But from the meaning of his name Kubera (deformed monster) and from iconographic literature, it seems that his stature is dwarfish. According to Dr. Goetz, the icons must have been made during the *Huṇa* period which is contemporary with Gupta period.

Bracket figures are quite popular in Gupta times, also during late Gupta times. More popular were *Vṛikshadevatās* as bracket figures popularly seen at Ajanṭā, Badami caves etc.

Conclusion

In general, the faces and head-dresses show affinities to classical Gupta sculptures. The Viṣṇu from Taxila has the same *Karaṇḍa mukuṭa* as seen in Nos. 2 and 4. The flame mark on the forehead of the bracket dwarf No. 3, is similar to that of Lokeśvara from Sarnath belonging to 5th century A. D. His curls suggest some of the *Kapardin* types of this period.

Some classical sculptures of the Gupta period 'Gaṅgā-Yamunā' over *Makara* and tortoise, were found along with the dwarfs. The drapery seen on the torsos of Śiva from Sāmalājī is similar to that of the Gupta sculptures of Central Indian temples.

Thus, the whole evidence may be summed up to say that all the sculptures belong to Gupta times. Paraṇadatta was a Gupta Governor during Kshatrapa time at Śāmalājī. Bhaṭṭārka was a Gupta general who finally proclaimed soverignity and independence over the region. These two persons must have some levelling influence in setting up this art tradition in Western India. If we are to believe that the famous poet *Kalidasa* lived during Gupta times, it is quite possible to assume that the bracket *dwarf motif* in the stone sculpture must have made an everlasting impression in his mind when he sang as '*utbāhu riva vāmanah*' in his famous work *Raghuvaṅśa.*

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THREE SCULPTURES FROM KĀRVĀN

R. N. MEHTA

Various antiquities such as coins[1], terracotta figurines, small and large sculptures[2] of Indian and foreign manufactures[3] have been recovered from time to time from Kārvān, a small village situated about 16 miles to the South-West of Baroda in the Dabhoi Taluka of the Baroda District. The ancient name of Kārvān is Kāyārohaṇa and it is mentioned as such in several old inscriptions. The place is also well-known as a seat of Lakulīśa cult[4]. The situation of the village on a small mound is also suggestive of its antiquity. The modulation of the surface results in giving different names to raised places. Of these, Sindhavāī Mātā's mound, Kāśi-Viśvanāth Mahādeva's mound, Falvā Ṭekarī, and the area of the cremation ground have yielded the antiquities.

Various interesting and beautiful sculptures are lying scattered over the village in and about the various temples, some are studded in walls, some lying under trees or at cross-roads. With their implicit faith in the Hindu mythological Pantheon and their reverential belief towards gods, even sculptures lying under trees are worshipped by the simple village folk in all earnestness and besmeared with sandal paste, *sindoor*, etc., in some cases. The villagers have a tendency to attribute good events to the favour of gods and the natural calamities like floods, earthquakes or outbreak of diseases to their wrath or disfavour. Outbreak of small-pox is quite common in Gujarāt in the months of April and May just as it is in many other Indian cities. But the villagers attribute this epidemic to the wrath of Baliākākā or Śītalāmātā who is considered to be the god or goddess to be propitiated for the protection of children from such diseases. Consequently, some sculptures, specially the male and female heads, are worshipped as Baliākākā or Śītalā mātā and adored with offerings.

Large sand stone images are lying around the temple of Sindhavāī Mātā, large images of Pārvatī, Gaṇeśa and some Vyāghramukhas at Falvā Ṭekarī, and a group of sculptures near Ekādaśaliṅgeśvara Mahādeva temple and in the compound of Nakalśvara Mahādeva temple. Of these, the group near

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1 R. N. Mehta and B. L. Mankad : Some interesting coins from Kārvān J. N. S. I., Vol. XIII, Pt. 2.

2 M. R. Majmudar : Antiquities from Kārvān with special reference to Lakulīśa worship, Journal of Bom. Univ. Vol., XVIII Pt. 4.

3 R. N. Mehta : Roman Camėos from Kārvān, Journal of M. S. University, Baroda, Vol. I, No. 2.

4 R. N. Mehta : Kārvān, the seat of Lakulīśa sect.

Ekādaśalinga temple included a number of small heads, a few architectural fragments, fragments of Śālabhañjikās and a beautiful image of Śiva-Pārvatī which was later studded by local persons in a niche in the pond. Also, some sculptures are fixed in a platform under a Banyan tree near the junction of the Kārvān station road and the road leading to Liṅgasthalī and some are studded into the walls of the local pond.

As the local people have a strong religious sentiment of veneration for these idols, removal of even loose sculptures is not possible without hurting the sentiments of these religious folk. Still, however, it is quite possible for the art lovers or even dealers in antiquities to pick up a few not very large but beautiful pieces at odd hours. Three pieces acquired from a Curio dealer by the authorities of the Baroda Museum before about five years have been recognised as pieces belonging to one of the above groups after a careful study and comparison of their art styles.

All the three sculptures are of sand stone. Two of these are neatly chiselled in high relief while the third is a sculpture in round. Their detailed description is as under :—

The first figure (Ac. 2. 529) is a Śālabhañjikā with three quarter profile, roundish face, well-formed thin lips, large eyes pointed at the corners, and incised bow-like eye-brows. The rather weak chin, well-set heavy breasts and rounded hands add to the feminine beauty of the figure. The figure has, however, been deformed by the mutilated nose, left arm, right and the lower limbs. The hair has been combed vertically and tied up without plaiting them, in a rather slanting chignon. The forehead of this figure is decorated with a two stringed ornament. The Śālabhañjikā is adorned with a ring in the upper ear, and a *galubandha,* with six rows of probably pearl and gold wire, in the neck. The centre of this *Galubandha* has a unit with five large jewels. Besides this *galubandha,* her neck is decked with a two-stringed pearl necklace (*hāra*) which falls on her plump breasts. Her upper left arm is adorned with a *bāju-bandha,* possibly of pearls.

The finely chiselled ornaments, and proportions of the body of this figure suggest that it might have been carved out during the reign of Kumārapāla in the middle or the later part of the 12th century A.D. The straight-backed stone slab 1′-4″×9½″ from which the image has been chiselled out, suggests that it might have once decorated some temple. (Pl. XX, Fig. 2).

The second figure (Ac. 2. 528) is also a Śālabhañjikā. The tree behind the woman is exquisitely carved with curved branch, mango-like fruits and stylized leaves. The woman stands in the front pose. The coiffeur is different from that of the preceding figure. The hair in this case is parted in the middle. The large *Kuṇḍalas* with floral pattern in the centre adorn the lobes of the ears. The oval face, thin lips, and well proportioned chin, eyes, and eye-brows similar to those of the first figure are quite pleasing. The nose, both hands, breasts and the lower part of this figure are missing. It is adorned with the ornaments similar to those of the Śālabhañjikā already described. On the whole this figure which is contemporary with the first is more worn out. The sculpture of 1′ - 5″ × 1′ - 0″ size was used as a bracket figure as is clear from the slightly rounded upper part with a stump for inserting in the socket to keep it in position. (Pl. XX, Fig. 1).

The third figure (Ac. 2.530) is a head of a woman ; the round face, plump lips suggestive of smile, straight nose, well-modelled eyes, and raised eye-brows are quite pleasing. The curly hair parted in the middle and decorated with a flower are tied up in a high chignon, on the back of the head. Around the chignon is a thick roundish bejewelled *mukuṭa-like* ornament. It is placed over it and held tight by a cross, distinctly visible over the chignon. (Pl. XXI, Fig. 1). It may be a *mukuṭa* or a wig, or a floral wreath tied in this fashion. These rather heavy head dresses are seen in a few sculptures from Idar area, and can be compared with that of the Pārvatī or Kaumārī lying near the Sindhavāī-mātā at Kārvān, or the Surāīmātā from Sadhli. This pecularity is visible in some of the sculptures from Gwalior also. The lovely and pleasing modelling and the hair style of this head suggest that it might belong to 8th or 9th century A. D. (Pl. XXI, Fig. 2).

As nothing except this partly defaced head has been preserved of this figure, it is impossible to say whether it was meant for worship or was merely a decorative figure in some temple.

TWO STONE INSCRIPTIONS FROM THE OLD IDAR STATE TERRITORIES

B. L. Mankad

The collections of the Himatnagar Museum brought over to the Baroda Museum in 1953 as per Government orders, include about two dozen inscription stones, mostly of later mediaeval period. A study and publication of these inscriptions is bound to yield useful information regarding the history of those times as well as the cultural, social, economic, etc., condition of the people of those times as also their religious beliefs and customs. Two inscriptions from this collection are being published here.

The earlier of the two (Pl. XXII Fig. 1) which measures $13\frac{1}{2}'' \times 30\frac{1}{2}'' \times 11.$ and belongs to the reign of Rāo Bhārmal is dated V. S. 1600 (1543-44 A. D" and refers to the digging and completion of a step-well by several members of a Brāhmin family consisting of Vyās Śrīnāthan, his wife Ahijalade and his four sons named Govāla, Piṇḍāra, Raghunāth and Dāmodar. The names of the parents of Śrīnāthan and the names of his father and grand-father are also given in the inscription. The text of the inscription runs as follows :—

भगवाबाई	संवत् १५९९ वर्ष मागशर वदी ४ रवौ वापीनु आरंभ खणाव्यानु कीधु
श्रारहीबाई	स्वस्ति श्री गोपालगण महारायारायश्री भारमल्ल विजयरा
भाटसुत	ज्ये संवत् १६०० वी चैत्रमासे द्वादश्या महापुण्य तिथौ गुरूवासर एव
व्या. श्री वेक	गुण विशेषण विशिष्टायी पुण्यतिथौ व्यासश्री श्री सेामनाथ तत्सुत व्यास श्री
ठ. व्यास मद	श्री नारायण तत्पुत्र व्यासश्री श्रीगोपीनाथ तद्भार्या बाई श्री लखमादे तत्सुत
सूदन व्या.	व्यास श्री श्री श्री श्री श्रीनाथन. तद्भार्या तत्सहधर्मचारण्या बाई श्री अहीजलदे
जीवा व्यास	नाम्न्या तत्पुत्रैश्च व्यसश्री गोवाल व्यास श्री पिंडार व्यास श्री रघुनाथ व्यास
गोवर्धन व्या.	श्री दामेादरैः समस्त नानाविध प्राणिनां प्रीत्यर्थं एकोत्तरशत पूर्वजानां
स सनत व्या.	मुद्धरणार्थं वापीपूर्व × × × जन्यफल प्राप्त्यर्थं व्यसश्रीकेशव व्यासश्री
हरजी वासु	अच्युत व्यासश्री माधव व्यासश्री श्रीपति एतेषां अन्येषां ब्राह्मणानां × चगु
देव नारायण	रु गेात्रदेवीनां च प्रसादाच्च वापी पूर्त्तमिदं नेत्यादितां श्री गोपालज
गोव्यंदानां	प्रीत्यर्थे श्रीनारायण प्रसादाच्छुभं भवतु । कराव्यमाही व्यासगोव्यद
	शुभं भवतु ॥

The gist of the contents of the inscription is as under :—

Line 1.—It is mentioned in the first line that the beginning of the digging of the well was made on Sunday, on the fourth day of the dark half of the month of Mārgaśirsha in V. S. 1599.

LINES 2-3.—mention that the well was constructed in the victorious reign of Mahārāyārāya Śrī Bhāramalla on the auspicious day *viz.*, Thursday, the 12th day of the month of Chaitra.

LINES 4 TO 7.—give the names and geneology of the persons who got this well dug. It is said that Vyās Śrīnāthan, his wife Ahijalade and their four sons named Govāla, Piṇḍāra, Raghunāth and Dāmodara got this well dug. The names of the parents of Śrīnāthan are given as Gopīnāth and Lakhamāde and we also learn that Gopīnāth was the son of Nārāyaṇa and grand-son of Somanāth.

LINES 8 AND 9.—narrate the purpose of getting this well dug. The purpose is said to be three-fold. (1) For the pleasure of various creatures on earth. (2) For the liberation of 7,100 generations of ancestors and (3) For reaping the fruits of the religious merit earned by digging wells.

LINES 10 AND 11.—mention that the work of digging the well was successfully completed by the grace of Brāhmins named Keśava, Achyuta, Mādhava and Śrīpati, of other Brāhmins and of the Guru, family-goddess and others.

LINES 12-13.—contain a benediction to the effect that good would be fall to every one by the grace of God Nārāyaṇa.

Epigraphical Peculiarities

The first line is in Gujarātī, the rest in Sanskrit. The *Pārśvamātrā* is used throughout but the interesting fact is that the short vowel इ is also written like a *Pārśvamātrā* anterior to the consonant with which it is combined *e. g.*, in the letter वि of the word विजयराज्ये in line 2, in the letter ति of the word तिथौ in line 3, the letters वि, शि and ति occurring in the compound गुणविशेषण......पुण्यतिथौ in line 4 and several other places. However, the short vowel इ is also written in a normal way at several other places *e. g.* in the words वदि in line 1, स्वस्ति in line 2, words धर्मचारिण्या and अहिजलदे in line 6 and at other places. On a closer study, it appears that the vowel इ is written like a *Pārśvamātrā* only with consonants व् and त् with the exception that it is written in a normal way, if these consonants are joined with another consonant.

The forms of the letters अ, ख, ज and स remind us of the older script, though the letter स is written also in a normal way at several places. The

forms of letters ए and थ are rather peculiar. The top of थ being more triangular than circular leads one to read it as the letter ध or some conjunct consonant at first sight *e. g.* in the word सोमनाथ in line 4. Similarly, the upper part of ए is also triangular making it difficult to read it as ए without the context of the preceding or following letters.

The text presents quite a variety of personal names in the same family. It seems that the names ending in नाथ were quite favourite with the males of the Brāhmin families and the names ending in दे with the ladies. The names of males denote more frequently the synonyms of Vishṇu or Kṛishṇa rather than of Śiva. It may also be noted that most of the names of males are suggestive of gods *e. g.* सोमनाथ, नारायण, रघुनाथ, दामोदर, गोपीनाथ, etc., and names showing profession like गोवाल, पिंडार are less frequent.

At a few places, the mistakes done by the masions in carving can also be detected *e.g.* the word व्यास in lines 7 and 9 is carved as व्यस.

The inscription also shows that every family had a family-goddess and the belief was prevalent that her favour was essential for successful completion of any good work. Similarly, the religious belief that 7,100 generations of the predecessors of the person who gets the well dug are rescued (from the cycle of births and deaths) is also evident.

The second inscription (Pl. XXII, Fig. 2) belongs to the reign of Punjarāj, the son of Bhārmal by his queen Rājamatī. It measures $15\frac{3}{4}'' \times 23\frac{3}{4}'' \times 6\frac{1}{4}''$ and also refers to construction of a well by Pratāpade, the queen of Punjarāj in V. S. 1612 (1555-56 A. D.)

The text runs as under :—

|| श्रीमहागणपतये नमः || स्वस्तिश्री जयो मंगलमभ्युदयश्च ||
अस्तील × र्गमिति ×××× हीयः श्रीकेलिसद्मपुटभटेतमेकमुर्व्यां ।
दृप्तो यदद्भुतगुणैः किलगूर्जराख्यो देशसृणाय विषयान्नहिमन्यतेन्यान् || १ ||
शृंगार हारक्षिति खननाक्ष्या : सर्गसाम्राट : (?) सम्रतस्म × × ।
निज प्रतापाल्पित निग्म भातु स्तस्मिन् (?) भू × तु रधी × × धी|| २ ||
प्रत्यर्थि भूभृद्विषघात दृ × न्स्वशौर्य हर्यक्षि विलास शैल :
दिगंत विश्रीत यशो मराल स्तस्मा × रद्रा दुदियायत्तीमः || ३ ||
श्री प्रेमदेव्यामुदपादितेभः श्री भारमल्लस्तनयोद्भूतश्रीः
विदर्भ भूमिपति संभवायां प्रद्युम्नवक्री पुरुषोत्तमेन || ४ ||
श्री भारमल्लोपि संराजराजः श्री राजमत्यां सविरंमहिष्यां
शिष्यां जयंतं मघवेव सूनुं श्रीपुंजराजं जनयांचकार || ५ ||

निर्म × यः श्री महिमृ × राहैः सेनाम्बुराशिं निजदोर्बल्यवशः
सुधांशुं स्फुट नां (?) प्रणीयतेन त्रिलोकीं समन्वभुव (?) च्च ॥ ६ ॥

लीलावेश्मजयश्रियो विदुरता न ? ल्लोवसनोदय
कीर्त्तिस्वस्तटिनी तु (?) खार शिखरी धै (?) यांद्रि (?) पंचाननः ।
प्रस्फूर्जत्प्रकट प्रताप तपनात् × तिर्वसनात्पथः (?)
सोयं सर्वगुणानु धिविजयते श्रीपुंजपृथ्वीपति : ॥ ७ ॥

औदार्यं यदि नाकनायकतरो व्रींडातरोत्पाटकं
शांडीर्यं यदि × तितत्रिजगती वीरो × प्रदर्पादिचं ।
ज्ञान्वत्वं यदिलम्बवर्ण शिरसा माकंप × × न्यतत्
× × मिह वर्णनोय चरितो नो पुंजनामानृपः ॥ ८ ॥

रुदेति नागनिजबन्धुकृत प्रतापदेवीतिच स्वसुखप्रहेतदधाना
× ल्हड राघव × × बुधि संभवाश्री भूभृवणं जयति पुजनर × राज्ञी ॥ ९ ॥

स्वस्वांत विस्फुरित बाल मुकुंद तेदंतो
त × × त निखिल व्रजिनां × वास ॥
पुंजप्रियप्रणयिनी भुज तान्निवेला
× डांनकस्य चरिततनवेन्नमस्य ॥ १० ॥

× × गम × × × तिवराजं रामा लोभनेया व्याकुलयति लोकाना
मातेव तेषां सकलार्त्तिदंत्री प्रतापदेव्यान परास्ति काचित् ।
× × × × स्तान्नयनैः शमयन्ती × × मु × × जनानी
नृपमप्यहर चिराय × × पथि वापी विरचय्य × तिरम्या ॥ ११ ॥

वर्षविक्रमभूमिपालसमयाद × × भूसमिते १६१२ कौ × टीक कुंभश्रिते दिनमणौ ।
कामस्य सख्या वृते गौरीज × निष्ठां निरंतरदिने सर्वोपकार × र्मी
प्रस्मांम × नि पुंजराट् प्रणयिनी वापीन्य × × द्वत्मनि ॥ १२ ॥

कासारेषु चलाचलो कुलतिमि वातखरासोः कारैः
संतप्तै सलिलोच्चये तप × तौ मेदस्थिताम × ति
अं × लं करुणायितां शुचिदिमं भोम्बाजिनीवापिकां
पाथां प्रा × मुर्दतनुर्ध्वे मडला पुंजप्रिया कारितां ॥ १४ ॥

गोपालगण महारायश्री भारमल्लसुत महारायश्रो पुंजराजनी
महाराणी श्री प्रतापदेतीणी × × त्पवि सर्व लोकना उपकारनि-
अर्थि नीपजावी सदां शुभं भवतु ॥

This inscription is in verse. Unlike the former inscription, the text of this inscription begins with an obeisance to the great Gaṇapati. This is followed by 14 verses in different metres. The verses are followed by two lines of prose mentioning that the well was constructed by Māhārāṇī Pratāpade,

queen of Mahārāo Punjarāj, the son of Mahārāo Bhārmal, for the benefit of all people.

The inscription is eulogistic in nature and elaborately mentions the good qualities, valour, etc. of Punjarāj and his fore-fathers.

The first three verses describe the valour, good character, etc. of the Gurjaras. It is said that their fame spread in all directions. The fourth verse says that Bhārmal was the son of Premdevī, the daughter of the King of Vidarbha. It is mentioned in verse 5 that Bhārmal had a son named Punjarāj by his queen Rājamatī. Verses 6 to 9 deal with the valour, fame, good qualities, etc. of Punjarāj. Verse 10 deals with the good qualities, etc., of the queen of Punjarāj. Verse 11 mentions that this queen got constructed a step-well on the way (of travellers). Verse 12 describes the day of construction of the step-well, and the position of the stars and planets on that day. Verse 12 is followed directly by verse 14 which narrates the different type of benefits that will be derived from this well by different people. So, in fact there are 13 verses and not 14. The verses are followed by a couple of lines in prose mentioning that queen Pratāpade got this well constructed for the benefit of the public.

Epigrāphical peculiarities

Pārśvāmātrā has almost disappeared. It therefore follows that the use of *Pārśvāmātrā* just disappeared within the first ten years of the third quarter of the sixteenth century A.D. Letters have assumed more modern forms. Only अ and ज retain their old forms. ख is used in both the forms.

The inscription also shows that the Rāos were considered equal with the kings of Vidarbha with whom they had got marriage relations.

Thus both the inscriptions refer to the construction of step-wells by the Rāos of Idar. Even before the times of the Rāos, well-built and beautiful step-wells have been a special feature of the old Idār State. They are found in large numbers in the different areas of the ancient State and as they mostly contain inscriptions, they are instrumental in supplying information about the old history of the State and the social, economic, etc., condition of the people. Every village possessed at least two or three step-wells, if not more. The large number of well-built wells bespeaks of the prosperity of the territory. These step-wells were built not only by kings and queens but every community contributed its mite for these works of public utility, as seen from the first inscription.

Incidentally, it may be noted that Rāos ruled over the old Idār territories for about 500 years. Rāo Bhārmal and Punjarāj were descendents of Rāo Sonigji who came in possession of Idār in 1246 A. D. after helping Sāmaliā-Soḍ to kill his predecessor ruler Hāthī-Soḍ who was originally a Bhīl servant of the Chief of Idar but who ruled over the territory for some time. Rāos were gallant rulers and the boundaries of the State of Idār extended far beyond those at present in their times.

FUNERARY FIGURINES OF ANCIENT CHINA

H. Goetz

For our knowledge of the history of human civilization, the cult of the dead is of the greatest importance. There have always existed three basic ideas : The deceased are continuing to live, as spirits of some sort, either in or near their original home, or in some inaccessible realm beneath the earth, at its utmost confines or in heaven. Where matriarchy prevailed, *i. e.* where the mother was the head of the family and inheritage passed from mother to daughter, the deceased was believed to return to the great Mother Earth (Pṛithvī Devī, De-Meter). Where patriarchy is the rule, *i. e.* where power and property are centred in the father, the deceased are thought to return to their heavenly father (s). In the first case, the dead are buried in the earth, in the second, they are cremated and ascend to heaven in the smoke of the funeral pyre. With the emergence of the state, patriarchy has superseded matriarchy, and with the progress of civilization many of the primitive ideas have been sublimated or subordinated to more lofty religious or philosophical concepts.

For, religion is very conservative and rarely discards older ideas completely. In most countries, patriarchy has not been able to abolish burial, and even where the dead were cremated, their ashes often were buried. As a matter of fact, this very compromise has resulted in the development of the most spectacular monuments, the funeral mounds in all their variants, from the cairns and dolmens of North America, ancient Europe, South India and South East Asia, and the tumuli of North Africa, the Mediterranean, South Russia, Siberia, Tibet, China and Japan to the pyramid temples of ancient Mexico, the pyramids of Egypt, the stūpas (dagobas) of India, Ceylon, Burma and Thailand, the rock tombs of Peru, Syria, Asia Minor and Iran, the mausolea of the ancient Mediterranean, and the funeral temples of India, Cambodia (Vāt) and Java (Chandī).

The soul of the dead, or at least its grosser part, or some power connected with it was believed to live a shadow life in the next world, not very different from that on this earth. Indeed, if the deceased had been a person of rank, a ruler, a hero, a saint, his presence was even desired, as a protection for his descendants and subjects. Where he was buried, he was provided with a funeral chamber containing all the equipment and personnel he had possessed in life ; where he was cremated, this property and following were cremated with his corpse, and the common ashes deposited in such a manner as to exercise, by magic sympathy, the maximum of beneficient influence.

Originally, wives, concubines, body guards and servants were buried in the same tomb, alive or sacrificed (resp. after committing suicide). Such mass burials of princes with their following have been traced in the earliest royal tombs of Mesopotamia at Ur, in Iran, in the Central Asian steppes from Russia to Mongolia and Tibet, and in the earliest pre-historic tumuli of Japan. The gladiatorial fights in ancient Etruria and Rome, *Satī* in India (and in a lesser degree in pre-Christian Northern Europe) and the sacrificial selfsacrifice of warriors in the mediaeval Deccan (commemorated in many Vīrakkals) have been remnants of the same custom.

But, as such a mass sacrifice of human and animal life, and of—generally costly—property in the end proved incompatible with the needs of society, it soon was restricted to a few persons and token gifts, or to a temporary retirement and abstinence from all luxuries, or replaced by substitutes of wood or clay, or even mere relievos and paintings, often endowed with a magic life by means of special ceremonies and inscriptions. This substitution has been responsible for the wonderful funerary art of ancient Egypt, Etruria, China and pre-historic Japan. For, as these substitutes had to come as near to real life as possible they demanded a great realism and vitality which could be learnt only from the most careful observation of living nature.

The Chinese of historical times have been an emphatically patriarchal people to whom the clan and joint family were more important than the State, and respect for the elders of the family the greatest of all virtues. Confucianism has made this respect the very cornerstone of public life. People would buy the expensive coffin already early in life, if necessary, paying by instalments. Even distant relatives might contribute to the costs and if it could not be helped, sons would sell themselves as slaves, girls as prostitutes in order to assure the funeral of their parents and the maintenance of the family tomb. And until modern times, tombs were inviolable, even if they might prove the greatest impediments to the life of later generations. The tombs were mounds somewhere in the woods or fields, enclosing a chamber built of stone or bricks and provided with a cult place and stelas or name tablets for the ancestral offerings. Under the Chou Dynasty (1150-221 B. C.), the great champion of patriarchy, women and servants were immured, alive, in the funeral chamber which had been filled with costly bronze vessels. But already since the 7th century B. C. this barbaric custom began to die out and definitively disappeared under the Han Dynasty (206 B. C.–220 A. D.) when the old feudal order was superseded by a bureaucracy and a mercantile class accumulating immense wealth from the silk trade with India, the Iranian and mediterranean countries. For, at that time the empire had expanded

over Central Asia upto the frontiers of the Parthian Empire, and the Chinese caravans went as far as Syria and Asia Minor. But merchants are parsimonious and spend on luxuries mainly where ostentation can increase their credit. In the tombs, the costly bronze vessles were replaced by terracotta models of houses, chariots, beds, stoves, crockery, etc.; and instead of living women and servants, wooden, straw or clay dolls were used, and the walls of the funeral chambers covered with cycles of paintings or reliefs. The number and size of these figurines depended on the status of the deceased ; the higher his position and the greater his wealth,the greater was the number and bigger was the size of the figurines. Only rich people could afford to have a major-domo and their own troupes of entertainers (wrestlers, boxers, jesters, musicians and dancing girls). Only ministers, governors and high magistrates could claim a retinue of officials. Horses, then recently introduced from Bactria (the present Russian Turkistan) were the privilege of the upper class, so much that also ladies became excellent horsewomen riding in the male style. Only well-to-do landowners had houses of several storeys, oxen and cows. Only great merchants had caravans of Bactrian camels. Simple people had to be content with sheep, goats and chicken. But as human ambition always aspires at a higher social status than that actually attained, the government had to fix by imperial edicts what was permissible at the various funerals.

Of course, these figures were not real imitations of the persons and objects for which they served as substitutes, but types fabricated by means of moulds. The statuette of the major domo, *e. g.* was not that of Mr. Ling in the service of duke Chang or governor Sun, but the supervisor of a palace in general, a glorified servant full of pomposity, obsequiousness and guile. The dancing girls were not this or that artiste but characteristic female entertainers. Not the individual features, but the class and professional characteristics were observed with extraordinary astuteness. It could not be otherwise ; for, the figures were sold over the counter in considerable quantities. Other figures, however, could not be taken from real life, *viz.* those of the spirits of the earth and those of the protective deities who had to ward off evil spirits, such as are everywhere believed to haunt cemeteries and burning grounds. The first are animalic, rather like dogs, with huge horns on their heads, but are convincingly fashioned, powerful, menacing with a slight note of grotesque humour. The latter are of human appearance though with a demoniac face.

With the decline of the Han dynasty, there came bad times. The Central Asian conquests were lost and with them the direct contact with the Parthian Empire. First, the Kushan stepped between ; and then the Toba Tunguse

(Wei), Juan-Juan, Turks and Hephthalites spread over Central Asia. Though the Chinese several times recovered their former empire and even advanced upto Lake Aral, though for some time the Wei dynasty united Central Asia with the empire they had conquered in Northern China, trade suffered. In China, the wealthy middle class had been ousted by a foreign aristocracy ; and insecurity and the high custom duties charged by the petty rulers along the "Silk Road" made the foreign trade much less lucrative. Moreover the advance of Buddhism, introduced in China already under the Han Emperors, but powerfully propagated and nationalized first under the Wei, proved detrimental to the old Chinese customs. Nevertheless, the funerary terracotta figurines did not die out. Now used mainly for aristocratic funerals, the figurines became less common, however more elaborate and beautiful.

When China was again united by the shortlived Sui Dynasty (589-618 A. C.) and under the T'ang Dynasty (618-907 A. C.) experienced another Golden Age, indeed the zenith of her glory, also the funerary figurines returned to fashion. For, again the classes who had had a predilection for them, became powerful, *i. e.* bureaucracy and the rich merchants. For, until the great crisis created by the rebellion of the Turkish general and imperial favourite An Lushan (middle 8th century) T'ang society had been very international and tolerant. Many foreigners occupied high government posts and foreign mercantile colonies and religious communities flourished in the very heart of the country. Chinese civilization then was a very open-minded to new foreign inspirations, but also so creative as to absorb them completely, with the result that Chinese art was enriched to the point of becoming something very different from ancient Chinese art. Thus T'ang art became the classic tradition from which stem all later style phases upto our own time.

This was reflected also in the funerary terracottas. In Han times, the models of houses, kitchens, stoves, furniture had pre-dominated. Now it was figurines of women, artists and servants. Han pieces were baked and afterwards painted. In the T'ang period, this was done only with the cheaper pieces ; the better ones being fire-painted (mainly cream, chrome-yellow, green and also ochre) and glazed. Han figures, though realistic enough when compared with the hieratic grandeur of ancient Chinese art, look stiff by the side of the easy naturalness, elegance and lively power, yet absolute aesthetic perfection of T'ang terracottas.

The civil wars following on the revolt of An Lu-shan had reduced China to chaos and poverty, and her population to one tenth. The funerary figurines went in disuse, though occasionally they are found even as late as the 13th-

14th century. This time a religious change discouraged a revival. Since the Han dynasty Taoism had become increasingly influential. Though basing its claims on the teachings of the great mystic philosopher Lao-tze (6th century B. C.), it had in practice become a national church, venerating the forces of nature and the spirits of early Chinese religion in a modernized form. In imitation of Buddhism, it had turned those dark, almost shapeless powers into an anthropomorphic pantheon of gods and goddesses, fairies, saints and demons ; and evolved a ritual very similar to that of the Buddhists and Christians. Thus, it became the custom to burn incense before the tablets of the deceased. Instead of wooden or terracotta figurines now such of paper were provided and burnt at the funeral. And instead of giving furniture, crockery and provisions to the dead, paper money (fabricated expressly for this purpose and without trade value) was burnt so that in the next world the deceased should be in a position to buy whatever they needed. This custom has persisted up to our time, though it may be doubted how much people still believed in it really. For, most such like customs become a social ritual, symbols of status, even where the beliefs underlying them are dead since long.

This explains also how so many of those old funerary figurines could find their way into modern museums. Even in old times, when the tomb mounds were regarded inviolable, they were not rarely looted by robbers or marauding soldiers, or fiendishly destroyed by powerful personal enemies. Even the imperial tombs proved not to be exempt from such like desecrations. But when in the last century modern roads and railways were constructed, people did no more object when these had to be laid out across old tombs whose owners had been forgotten since long. Only those connected with families living on the spot or in the neighbourhood were still held sacred. Thus many tumuli were levelled down by the foreign engineers and their Chinese staff. When brought to Europe and America, the Han and especially the T'ang figurines aroused much enthusiasm amongst collectors ; and at present there is hardly any museum in the occident that cannot boast of some such like pieces. Prices went up, and in consequence more tombs were searched, now by the Chinese themselves, and their contents sold to foreign countries, notwithstanding official efforts to prohibit their export. And at last also many pieces were faked.

In Indian museums, T'ang figurines still are very rare. The National Museum at New Delhi has some wooden statuettes collected in the uttermost west of China by Sir Aurel Stein. Some others are in the Jalan

Collection at Patna. The Baroda pieces were acquired in 1952 from the Royal Museum of Art and History at Brussels through an exchange of duplicates. They had originally belonged to the collection of the late Dr. Buckens, a Belgian railway engineer who had found them during construction work north of Honanfu, the old capital of the province of Honan (in the Hoangho Valley, on the railway line connecting Kai-feng-fu with Hsingan). As duplicates, of course, they do not represent the highest quality of Chinese funerary sculpture; but nevertheless are good and representative pieces. Probably they had been of the less expensive, but not yet cheap class manufactured for the well-to-do, but not really wealthy middle-class. They are not fire-painted, but once may have had colours applied afterwards. The stove (Pl. XXIII, Fig. 3) may be a Han piece, possibly also the servant in the heavy winter costume (Pl. XXIII, Fig. 1). All the other pieces evidently belong to the T'ang period. The camel (Pl. XXIV, Fig. 2), cow (Pl. XXIV, Fig. 3), sitting ox (Pl. XXV, Fig. 2) and ram (Pl. XXV, Fig. 3) are well done. The horse (Pl. XXV, Fig. 1) is not a quite successful imitation of the wonderful examples which one can see in foreign museums ; for, though its pose appears lively, a close inspection reveals defects of proportion and stance. On the other hand is the huge head of the earth spirit (Pl. XXV, Fig. 1) a common feature. The most charming figure is that of the, perhaps somewhat dull, maid-servant (Pl. XXIII, Fig. 2) with the loose pointed cap, and the sleeves of her undercoat hanging down over her hands. This latter fashion was quite common, as in the winter it kept the hands warm. For work, of course, the sleeves had to be pushed back. On the other hand, dancing girls used these long sleeves as an artistic device, letting them float from their slowly swinging arms. Taken all in all, these figures represent provincial art, slightly clumsy imitations of the more elegant figurines which the high officials and rich merchants could afford. Even so, they give a good idea of the great qualities which Chinese art in T'ang times had achieved.

KĀṬHĪS OF SAURĀSHṬRA

BHAGVANLAL L. MANKAD

Kāṭhīs are not the natives of this land. Like many other people, they have left their original homes and wind-beaten, weather-beaten or time-beaten, they have come and finally settled in Saurāshṭra after tasting the waters of many rivers. The question arises whence these people came and at what period they settled in Saurāshṭra. The fact that they conquered most of Saurāshṭra and had been the masters of that land so much so that for the time-being, say for a century or two, the original name "Saurāshṭra" of that land was forgotten and the land was known as "Kāṭhīāwāḍ" even by the local people as well as by people living in other parts of India, shows that they must have come in large numbers. They wielded such a potent power that all other Rājput Rājās bowed down to them and were afraid of them.

Whence did such powerful people come is a question which has baffled the scholars. History tells us that like Gurjaras and Jāṭs, they came from the Northern part of India, specially from the Punjab, and still farther from Afghanistan and Central Asia, as also from Turkey and Egypt.

Purāṇas also contain some information about them. Especially, Mahābhārat tells us that Kāṭhīs lived during that period, and relates the following interesting story about their origin.

Karṇa, the great hero and a friend of Duryodhan was entrusted with the work of finding out the Pāṇḍavas who had concealed themselves and lived incognito during the last year of their exile. The condition was that if any of the Kauravas found them out, they had to repeat the exile of twelve years. Karṇa had grave doubt that the Pāṇḍvas had taken shelter in the court of king Virāṭa. But, he did not think it wise to invade the kingdom of king Virāṭa simply on such a flimsy pretext. He therefore, found out a clever device. He thought that if the cattle of king Virāṭa are driven away or stolen away, he will certainly send some one to recover their possession; and if the Pāṇḍvas are living incognito in his court, they will not be able to resist the temptation of rendering service for the sacred cause of rescuing the cows from the hands of the robbers by coming out from their abode. But, to carry away cattle of others was considered unworthy for a Kshatriya, as this was a mean and sinful act fit only for robbers and free-booters. Karṇa, therefore, took recourse to the efficacy of the *Mantras*. He planted a wooden

stick in the earth and transformed it into a man by chanting the *Mantras.* As this man was transformed from a stick (*Kāṣṭha*), he was known as *Kāṣṭhī i. e.* Kāṭhī. (Kāṭhī means a stick). This man stood with folded hands before Karṇa and asked for his orders ; Karṇa asked him to carry away the cattle of king Virāṭa. He further said :—

"You will be known as Kāṭhī. You may claim to be my son. It will be your privilege to carry away the cattle of your enemies. You will live a life of cattle-lifter". So, this man led the life of a cattle-lifter and his children followed the same profession.

After the battle of Mahābhārat which resulted in death and devastation, slaughter and extirpation, a tide of sorrow, grief and repentence flowed over India and we do not know anything about the Kāṭhīs who disappeared from the scene. But, again the Assyrian history refers to the Kāṭhīs as a powerful tribe. They are said to be a source of danger to their neighbours. These Kāṭhīs lived somewhere in the Northern part of Persia and Central Asia. They were good fighters, rode on powreful horses and lived as warriors. They overran certain parts of the adjoining country and established their rule. Further, we hear about the Hittites who had invaded Egypt and terrorised the Egyptians. For a long time, these Hittites were considered to be good fighters, cruel at heart and ferocious in look. They rode on horses, were fond of looting and devastating the provinces which they invaded.

Later, from Greek history, we learn that some fifty thousand strong Kāṭhīs gave a fierce battle to Alexander the Great, on his way to India.

But, again, for the succeeding sixteen centuries, we do not know anything about them. However, it appears that they must have lived in the Punjab, worshipping the Sun-God, building temples in his honour at Multan and other places.

They came to Saurāshṭra in the fourteenth century and settled near Thān in the country surrounding Panchāl where they built a Sun-temple. They overran almost the whole of Saurāshṭra and established a very strong power.

We must leave the question of finding out their original home to the learned scholars and be satisfied to observe and study their ways of living, their customs and manners, habits and hobbies, dress and ornaments etc.

With a view to prepare a habitat group-case of the Kāṭhīs, the Baroda Museum has collected certain interesting photographs from the actual homes of the Kāṭhīs in various parts of Saurāshṭra and has also purchased an

interesting set of the utensils used by the Kāṭhīs. These photographs give us an idea of their dress, house-decoration, etc.

It is very easy to distinguish a Kāṭhī from others by his dress. His *Surwāl* has a typical cut, as also his underwear and his *Badan i. e.* a native shirt. Its sleeves are full of creases at the upper end with broad shoulders offering a resemblance to the sleeves of an Afghan shirt. Nowhere else in India do we find a shirt or *Badan* with such broad, huge sleeves. His slippers are also of a slightly unusual shape with a *chhogā* of a small leather strip. Turbans are of various types, and resemble the *Sāphā* tuban or *maroḍī* string turban. A Kāṭhī ties around his waist a cloth called *Bheṭ*. It is a thin, fine cloth with a black strip at either end. The way of adjusting this *Bheṭ* around the waist is also typical.

As we enter the Kāṭhī's house through its main door, we find on our either side, high verandas or raised broad stone seats called *Oṭlās.* These are the places where a Kāṭhī spends most of his time with his relatives, friends or servants. In short, these serve the purpose of his drawing room. Every morning and evening, Kāṭhīs of different families, young as well as old, gather together on these *Oṭlās*, chit-chat, take opium (*Kasumbā*), enjoy "Hookka", and partake of sweetmeat as offered by the host. A Kāṭhi sitting in his *Ḍelā* with his friends feels as independent and proud as a king sitting in his *Durbār* with his courtiers. This assemblage which discusses all matters—social, religious, economical and political is known as "*Dāyarā*".

By these two *Oṭlās*, we come to the house proper. The exterior decoration of the main door is very interesting. It is decorated with a fine and beautiful Toraṇa of small beads of various colours. The shape of this Toraṇa is just similar to the shape of the door of an Egyptian house — flat at the bottom, narrower at the upper part. The figures embroidered in the curtain are similar to those found in Egyptian embroidery. (Pl. XXVII, Fig. 1).

As we enter the room, we see a stand of a curious shape with circles around a stick. It is, in fact, a large wooden peg to hang the clothes on, but it has a nice and beautiful shape. The walls are decorated with *Chāklās* —silk-embroidered sitting cloths with beautiful designs in variegated colours. Though made by country-women (Kāṭhī ladies), these are really good artistic specimens. Similar but larger pieces called *Chandarvās* are used to cover the pile of folded beds to give a decent and systematic appearance. The preparation of these decorative pieces provided a pleasant pastime to the Kāṭhī women in the leisure hours and gave them scope to show their art and good taste and to vie with each other in inventing different

types of designs. These decorative pieces add a good deal to the beauty and decency of a Kāṭhī household.

The household articles are beautifully arranged in the interior of the house. Jugs, saucers and other vessels are finely polished and arranged tastefully in a row on the shelf. This arrangement is called *Māṅd.* The vessels are so much brightened that the rays of the sun falling on them, when reflected, dazzle the on looker. The Kāṭhī women with their sound common-sense, always keep the mirror fixed on the wall opposite to the *Māṇd* so that the room is lightened all the more by reflection and refraction of rays. (Pl. XXVII, Fig. 2).

The floor of the house is besmeared in an artistic way with cow-dung mixed with horse-dung and some quantity of well-powdered lime. The fact that some eye-pleasing colour is also added to this dung bespeaks of the aesthetic taste of the Kāṭhīs. The Kāṭhī women carve out various designs while applying the dung to the floor.

The floor is covered with beautiful *Chākalās* of variegated designs and there are also tastefully embroidered cushions to lean on. For providing a comfortable seating posture to the guest, supports made of wood or metal, are given to him for resting his knees on. These supports are known as "*Ḍhīṅchaṇīās*". (Pl. XXVI Fig. 4). Metal *Ḍhīṅchaṇīās* are finely polished, while wooden ones are beautifully coloured in red, red and yellow or yellow and blue. Some use one *Ḍhīṅchaṇīā* while others use two.

Utensils of Kāṭhīs have peculiar shapes which distinguish them from utensils used by other tribes. The dining dishes (*Thālīs*) are made of bronze, their rims are not straight but are curved inside and this gives them a peculiar shape. Kāṭhiaṇīs polish these dishes with ashes of cow dung cake and take utmost care in keeping them shining. The peculiar inward curve of these *Thālīs* is suited to the type of the food they take. Kāthīs are fond of hotch-potch and curry. These are taken very hot, curry being actually kept boiling for a long time. The inwardly curved rims are suitable for pressing the hot hotch-potch to give relief to the burning hand. Cups in which they eat curry or drink whey are called "*Tāṅsalīs*", also made of bronze. Their bottoms and rims are broad. They can contain a large quantity of whey or curry, about four times the quantity contained in similar eating utensils used at present in India. This perhaps denotes that the Kāṭhīs had a good appetite, enjoyed good health and were consequently good eaters. Dāl, curry, whey and rich puddings were served in these

Tāṅsalīs. These *Tāṅsalīs* are of two types—flat bottomed (Pl. XXVIII, Fig. 3) and round-bottomed. (Pl. XXVIII, Fig. 2).

At night, they light candles and put them in candle-holders made of brass and decorated with brass leaves which are kept hanging in numbers. These candle-bearers resemble the *Ḍhīṅchaṇīās* in shape. The difference is that the *Ḍhīṅchaṇīās* are bulging at the top while candle holders have a cup-like hollow on top in the middle of which provision is made for the candle to stand. (Pl. XXVI, Fig. 3).

For storing sweets, the Kāṭhīs use large vessels called *Ḍabarās.* These are made of fine brass and each can contain at least half a mound of sugar or sweetballs. The lids have fine geometrical designs, but the body is generally plain. The lids are fixed to them with hinges and arrangement is provided for locking. Such vessels, full of sweets, are given by Kāṭhī parents to their daughters on the occasion of their marriage on the eve of sending them to the husband's house along with a variety of other gifts. These *Ḍabarās* are the speciality of the Kāṭhīs, though in course of time, other communities also adopted their use. These *Ḍabarās* are also of two types—some having three legs (Pl. XXVI, Fig. 1), others without legs (Pl. XXVI, Fig. 2). The three-legged variety has an advantage that the contents cannot be easily approached by rats or other insects.

The bed-steads of the Kāṭhīs are also typical. Legs are not even, but thick on top, less thick in the middle and thickest at the end. Generally, they are red-coloured and are termed *Ḍholīā* if bigger and *Ḍholaṇīs,* if small and low. They are usually kept ready with bed, blankets and other pullovers. Kāṭhī women also show their skill in preparing coverlets containing cotton inside and termed *Godaḍās,* which they knit with various designs. Pl. XXVII Fig. 3 shows a designed bed cover spread over the bed on the *Ḍholaṇī.* Kāṭhīs always keep buffaloes in their houses. These are mighty creatures, black as jet and fearful but with wonderful horns. They consume good quantity of food and yield a corresponding quantity of milk. Their udders can contain half a mound of milk. They are so mighty that often it is not possible for one man to milch a Kāṭhī buffalo.

Kāṭhī horses are also famous. They are splendid creatures, well-shaped and beautiful, fast-running and clever in galloping. They are very faithful. Kāṭhī bride gooms always go for their marriage on horses specially caparisioned for the purpose. (Pl. XXVIII, Fig. 1).

Kāṭhīs are famous for their hospitality and their doors are always open to any hungry man, who will surely get his meals there. They prepare very

thick and big loaves and a part of a loaf would be sufficient to satisfy the hunger of an ordinary stranger. The loaves are so big that if the upper covering is broken, ten tolas of ghee can be contained inside. Kāṭhīs are very fond of Ghee and Gur which they take in large quantity and prefer these to the best sweets in the market.

Such typical people are the Kāṭhīs who have settled in Saurāshṭra from far off countries, have influenced the life of the people of Saurāshṭra by their customs, etc. and have also incorporated in their life certain customs, beliefs, etc. of the people of Saurāshṭra.

TWO NEW INTRODUCTORY SHOW-CASES IN THE GEOLOGICAL SECTION OF THE BARODA MUSEUM

P. G. GUPTE

The Museum and Picture Gallery, Baroda, has a rich collection of geological specimens in its science sections. This includes one of the best and complete collection of minerals, different kinds of rocks, plant and animal fossils and other interesting models illustrating elementary principles of some of the branches of geology. It was possible to build up such a large collection through the efforts of the past curators, Mr. R. B. Foote, State Geologist of the former Baroda State, and above all, through the personal interest taken in the development of the Baroda Museum by late His Highness Sayajirao III Gaekwar of Baroda who acquired a larger part of the collection of the Baroda Museum.

After completion of the reorganisation of the Art and Historical sections of the Baroda Museum in the year 1953, the preliminary work of reorganisation of the various science sections has been undertaken. Because of the paucity of funds, no ambitious scheme could be undertaken for modernising the science sections. The reorganisation work which is limited to the very small space area available for display at present, is therefore undertaken on a very moderate scale by adding a few educational displays in the galleries every year.

In reorganising the geological gallery, a long felt need of providing this gallery with introductory show-cases – introducing to the visitor the science of geology and its various sub-branches — was given first consideration. In this reorganisation work, the first task was to remove unnecessary crowding of exhibits in the show-cases. This involved selection of the choicest exhibits and weeding off of the duplicate and less important ones. The entire reserve collection had therefore to be carefully studied and exhibits required for purposes of display in the proposed show-cases were selected.

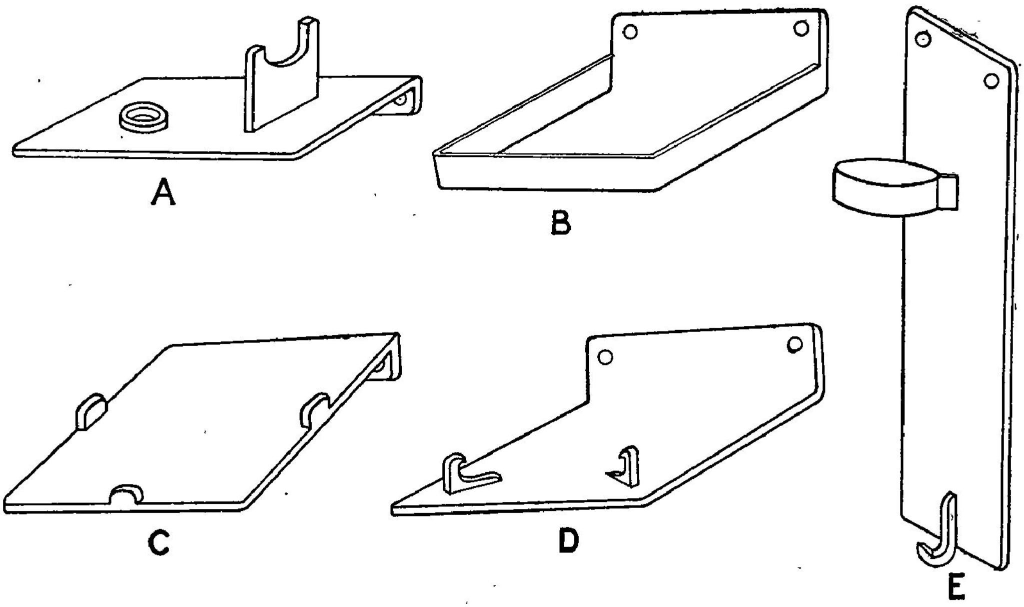
The two introductory show-cases (Pls. XXIX & XXX) are arranged with a view to give general idea of the science of geology. The collection of the exhibits for these show-cases consists of originals, plaster casts, glass models and photographs; thus offering a clear picture of the various aspects of the

science of geology. The display is mainly divided in two groups : (1) Physical geology and (ii) Historical geology. Physical geology which includes Dynamical and Petrological geology is represented by a few photographs showing the changes produced by some of the geological agencies ; different types of rocks such as igneons rocks, aqueous rocks and metamorphic rocks; Structural geology is represented by a few wooden models and photographs explaining various phenomena ; Historical geology is very well represented by plant and animal fossils in originals and plaster casts and photographs showing the plant and animal life in the past. In addition to these, there are a few geological tools which are used in connection with the study of geology ; models intended to illustrate the principles of Crystallography and Staratification ; representative collection of elements, glass models of diamonds, etc. etc.

The availability of space in the gallery for purposes of display and the diversity of form and colour of the exhibits were two most important factors which needed utmost consideration in planning display of the show-cases under reference. Taking into consideration the nature of exhibits, vertical display was found better suited.

The two vertical show-cases were therefore specially designed and prepared from good quality teak wood. The back of the show-case was made sufficiently strong to hold screws of large size. The front of the back was covered over by a good quality hard-board to ensure a smooth and uniform surface for display, and was coated by strong preservatives from the back as a safeguard against the attack of white ants. The soft-wooden surface on the front made it possible to drive the screws and pins inside with ease, holding them well at the same time. The hard-board was painted with white colour which served as the background.

The usual method of providing a continuous shelf along the width of the show-case was unsuitable for the present display. The mounting or fixing the exhibits directly on the board also proved difficult because of their unusual shapes, sizes and weights. It was therefore decided to prepare ledges of the appropriate sizes and shapes just suitable for individual exhibits (Figs. a—e). The ledges were made from transparent perspex sheets. They were bent at a desired angle needed for effective display of the exhibits. As the ledges are transparent they neither obstruct the vision nor do they interfere with the general colour of the background. They also render the handling of the objects easier, for they can be removed easily from ledges.



The problem of labelling presents great difficulties in a country like India where a large number of languages are in use. The limitations on the size of the label did not permit the labelling of the show-case in more than two languages. As per usual practice followed by the Baroda Museum, the interesting and instructive labels in two languages – English and Hindi – have been used.

With available materials and resources, all possible efforts have been made to make these two show-cases as interesting as possible. It is hoped that they will fulfil the purpose for which they have been organised.

CONSERVATION OF AN AKOṬĀ BRONZE

S. K. Bhowmik

Introduction

Preservation is a general term which implies protection of Museum collections from actual as well as potential deterioration.

Preventive measures, curative measures or conservation and restorative measures or restoration are the three different aspects which constitute the science of preservation. The two terms, preservation and conservation are used in the same meaning.

Preventive measures are employed in order to render an object, which is in good condition, immune to the forces of deterioration.

Curative measures are applied to an object in which the process of decay has actually started and which has lost its pristine beauty and original appearance. These measures comprise (a) scientific investigation of the causes of deterioration, (b) examination of material with a view to study the composition and manufacture of the object, (c) chemical treatment in order to cure the maladies and to render the object immune to further attack. To get more lasting result, it is necessary that this process should be followed by reinforcement and consolidation of the weak parts of the object, if any. This is done by giving support and sometimes by restoring very carefully and exactly the missing parts so that the aesthetic harmony of the object is maintained.

Recently, a bronze image of Pārśvanāth of the Baroda Museum collections originally belonging to the well known Akoṭā hoard of bronzes, was treated in the conservation laboratory of the Baroda Museum by using curative as well as restorative methods.

Condition of the image

This Akoṭā bronze image of Pārśvanāth belongs to 7th century A. D. Its length is 23 cm. and width 19 cm. When it was taken up for conservation, it was in a highly unsatisfactory state of preservation. It was found heavily attacked with corrosion. Heavy thickness of incrustation obscured the details on the surface of the object. Under magnifying lens, the metallic surface was found to be pervaded with micropits. Extending from the

lower portion of the chest, upto the rest of the abdomen, there was a big cavity. This cavity was caused on account of loss of metal from that part. The left arm of the image had developed a horrible fracture and that part was found to be very weak. There were many micropits also in the central part of the body and on the pedestal. The micropits were filled with accretions and corrosion products and they became prominent after cleaning. The layers of incrustation were not found uniform and compact.

White gray incrustation was on the surface. Below this, there was a layer of reddish incrustation. Below the reddish layer came a layer of bluish green incrustation. On the pedestal, there was a very hard layer of scarlet incrustation. The corner and the pits were found heavily corroded with greenish incrustation. The back part of the image was comparatively less corroded but bluish green accretion was a predominent product of corrosion there. The most striking feature which startled me was the fragility and brittleness of the image. The image was actually swollen as a result of corrosion. The photographs before treatment will give an idea of the miserable condition the object had reached. (Pl. XXXI, Fig. 1 & Pl. XXXII, Fig. 10).

Source of the material

This image was acquired by the Baroda Museum along with a number of other images found from underneath. The history of Akoṭā and the find is very interesting and I think it would not be out of place here.

Akoṭā is a modern village—a suburb of Baroda. Fleet[1] identified the modern village of Akoṭā with the ancient town "Aṅkoṭṭaka". Ancient history of Aṅkoṭṭaka dates from at least 2nd century B. C. This small township developed into a commercial centre. The people lived in well-built houses of bricks. The city of Aṅkoṭṭaka flourished peacefully during the regime of the Gupta and Valabhī rulers. During the rule of the Rāshṭrakūṭas, Aṅkoṭṭaka was an important administrative centre. The Rāshṭrakūṭas were great supporters of Jainism and Aṅkoṭṭaka became a great centre of the Jain Śvetāmbara sect. During their reign, many temples came into existence on the bank of the Vishvāmitri. After the Rāshṭrakūṭas came the western Chālukyas; but only for a short period. After them, the Solankis of Anhilwāda Pāṭan captured Baroda and ruled peacefully. The progress of Aṅkoṭṭaka was unhampered even during this period. In 1298, Alapkhan, a general of "Ala-ud-din Khilji", invaded Baroda, and conquered the whole of

1 Fleet, author of Akotā grant of Karkasuvarāṇavarsha, Indian antiquity. Baroda through ages—B. Subba Rao.

Gujarat. The story of depredation, destruction and terror of Alapkhan is well-known in history. After this devastation, ancient Akoṭā never regained her lost glory. The Jain community buried all of their images to save them from destruction by Muslim invaders. There is a controversy regarding the time of burial of these Jain images as there is possibility of the hoard having gone underground anytime after 1100 A. D.

In 1949, Shri M. D. Desai of Baroda, discovered the site of the old town of Aṅkoṭṭaka. Later on Dr. B. Subba Rao excavated the spot on behalf of the Archaeological department of the M. S. University of Baroda. In his excavation report, he mentions a pit where the bronzes were found. Whether it is an act of deliberate burial of bronzes for safety or an act of sacrilege, cannot be definitely said. But from excavation report, it is apparent that the bronzes were found in dump pit containing bones, ash, charcoal and potsherds [1]. Some of the bronzes were found in a damaged condition when dug out. As the image under reference is one of the Jaina bronzes — excavated from the site of Akoṭā, it has experienced sub-soil environment for a long time.

A study of the technique of manufacture and the composition of the bronze image may provide some clues for this tremendous corrosion and decay.

Casting process

The 'lost wax' process whch is known as "cireperdue" in the west has been the traditional method of bronze casting in India. The Akoṭā bronze image was also cast by the lost wax process with a black core inside. According to this process, the figure is first modelled in hard wax and then evenly covered with successive layers of clay till a fairly firm coat is obtained. When the clay is dry, it is heated in an oven and the wax is removed by melting. The result is the formation of the clay mould. Molten metal or alloy is then poured for casting a solid image. When the metal becomes cold and sets, the outer shell of clay is broken and the metal figure is chiselled and polished, according to the skill of the artist [2].

The art of casting bronzes goes back to remote past, may be to the times of the Harappa culture. During the Gupta period, art of metal-casting reached the culmination of technical excellence and metallurgical skill.

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1 Akoṭā Bronzes, by U. P. Shah.

2 Lt. Gen. D. R. Thaper : Icons in bronze.

Composition

The metal image makers in Northern India generally used an alloy which was composed of eight metals, but bronze figures in the South were invariably composed of five metals. For this reason, they were styled as "Pañchaloha", or five irons [1]. This 'Pañchaloha' is generally found to contain copper, tin, zinc, white lead, with small percentage of silver or gold in composition, the exact proportions varied according to the different periods and schools.

No chemical analysis of the Akoṭā bronzes seems to have been done so far and very little is known about their casting technique, heat treatment etc. I, therefore, thought that it would be interesting to analyse the present bronze. For the preparation of the specimen for quantitative chemical analysis, the oxidised layer and the corrosion products were removed. Sound metallic core was selected for analysis.

The chemical analysis revealed the following composition :—

Cuo_2, Zno_2, Sno_2

Copper	82·00%
Tin	11·20%
Zinc	3·50%
Lead	2·00%
Nickel	In traces only.
Bismuth	In traces only.

In this connection, it is interesting to note that the composition of the present Akoṭā bronze shows similarity with the Nālandā bronzes, since most of the alloys of specimens from the Nālandā images have been found to contain zinc, lead and nickel as revealed by the report of chemical analysis by Dr. B. B. Lal published in the "Ancient India, No. 12."

According to J. Coggin Brown, copper ores have been smelted in India since prehistoric times and it is believed that the industry flourished on a large scale in the middle ages in Southern India, Rajputana and Hazaribagh (Bihar).[2]

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1 Ancient India, No. 12, 1956.

2 India's mineral wealth, J. Coggin Brown.

So it may be presumed that the artisans who made Akoṭā bronzes might have used Rajputana copper ore for smelting copper for their bronzes. Khetri in Rajputana is a place where copper ore is found plentifully. Besides, places near the Mount Abu ore also rich in copper ores containing lead sulphide and zinc sulphide as impurities and people used them for smelting copper since long past.

However, the possibility of their having used copper ore from Hazaribagh in Bihar, where copper pyrites occur together with natural lead sulphide and natural zinc sulphide cannot be ruled out.

Another significant point that is to be noted is the presence of Bismuth.

Probe into the causes of brittleness

Stability and hardness of a metal or alloy depends on the right procedure of casting process. Microscopic examination revealed important structural characteristics which throw considerable light on the thermal treatment undergone by the alloy.

From quantitative analysis, I have found that the alloy is having all the necessary constituents and it is a good resistant alloy like gun-metal. Then, why has it become so brittle and fragile ? The microscopic examination provided the answer. The grain size appeared coarse and it is an important fact that coarse grained metal or alloy cannot be strong and tough. Besides this grain size, the structure revealed the simple dendritic type of crystals which suggested that the image has not undergone proper heat-treatment[1] just to rectify the structural defects. Dendrites present a coarse structure which forms planes of weakness. Presence of dendritic structure in a metal or alloy indicates inadequate " hot working " subsequent to casting. Heterogeneity and weakness resulting in the metal or alloy are due to the presence of dendritic structures.

In this particular case, the dendrites are of Eutectoid solid solution of copper and tin alongwith lead and zinc. In between the black portions

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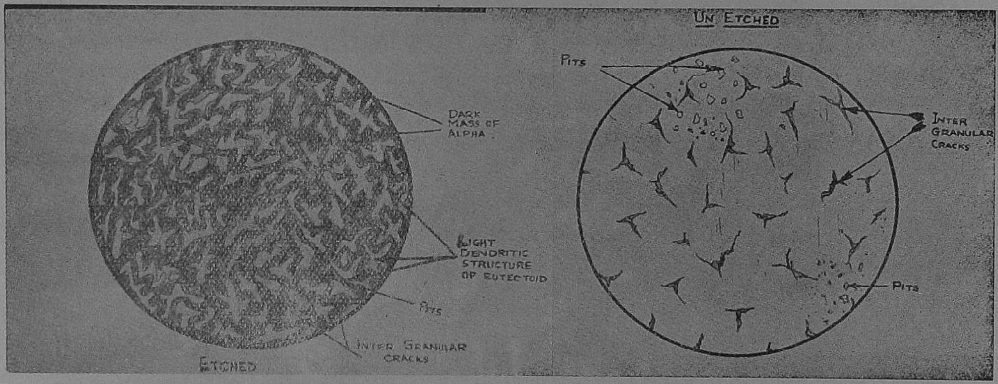
1 Heat-treatment is an operation or a combination of operations involving the heating and cooling of a metal or an alloy in the solid state for the purpose of obtaining certain desirable properties or conditions in order to avoid brittleness, to increase resistence and other physical properties.

as appeared in Fig. 1 below, intergranular cracks were present. These cracks can be seen even without the use of re-agents, that is, when the specimen is not etched. The structure under the microscope when the specimen is unetched is shown in Fig. 2. By studying the structure under microscope, it is apparent that these cracks are only due to the dendritic structures of the eutectoid. Therefore, it seems that the defect is not in the percentage composition of the alloy but in the casting method and the further treatment. Rapid work–hardening may also contribute to brittleness and cracking.



1. Metal etched with Hydrogen Peroxide and Ammonium Hydroxide, showing dendrites.

2. Un-etched metal showing pits, inter-granular cracks etc. under microscope, showing cracks.

The presence of impurity like *Bismuth* as revealed in chemical analysis is another decisive factor which contributes enormously to the phenomenon of brittleness. The presence of Bismuth even to the extent of 0·005 per cent. tends to cause brittleness in copper.

Corrosion

Another factor of deterioration is corrosion. Corrosion is usually superficial but sometimes it is directed along the grain boundaries (the hair lines of contact between the grains) or other lines of weakness. A tangible proof of this unusual type of corrosion in this particular bronze was provided by the microscopic examination when it was found that corrosion was directed along the grain boundaries and other lines of weakness also. Another noteworthy feature is the presence of irregular distribution of corrosion.

The principal factors that promoted such irregular distribution of corrosion in this case may be mentioned as (1) Heterogenous structure, (2)grain boundary effects, (3) surface roughness or non-uniform finish, (4) differential strain, (5) differential aeration or contact with other metals etc.

It is realised that of factors which cause corrosion, those external to the metal are relatively much more important than those internal to the metal. But internal factors are usually subsidiary to external condition. Both the factors–internal and external are complementary to each other in the process of intensifying the phenomenon of corrosion. Corrosion in acid solution is much more rapid than in neutral solution. The presence of bone, ash, charcoal etc. in dump pit where the Akoṭā bronzes were found may indicate the possibility of formation of carbonic acid which is the basis for reaction of importance in certain cases.

In bronzes, contamination is the rule rather than the exception because soluble corrosive salts are widely distributed in nature and in soil; and for this reason they are usually present in excavated materials. Consequently, in Tin-bronze, incrustations will be more complicated both in composition and structure.

The presence of chloride in the incrustation presented an acute problem from the point of view of conservation. The presence of oxides, oxychlorides, sulphides and carbonates made the problem more critical.

The scarlet incrustation was identified as mercuric compound. This suggested that the image must have been installed for worship in a temple. As a matter of fact, mercuric sulphide which is scarlet in colour is often mixed as a pigment in the making of sacred red powder commonly known as "Sindur" used in the worship of deities.

Curative Treatment

As this image manifested some rare forms of deterioration, its curative treatment was not an easy one. It revealed a Patina which is of great antiquity value and it was therefore necessary to preserve the Patina. The following methods were adopted for curing the object.

(1) Washing with hot water which removed all soluble impurities from earth, and the soluble salts on the surface. The subsequent washing was done with distilled water as the tap water contains a large quantity of chloride.

(2) Mechanical cleaning with pointed wooden tools was carried out to clean the holes, corners and pits.

(3) A suitable mixture of Turpentine — Alcohol was used to remove the scarlet incrustation at the pedestal of the object.

(4) 6 per cent. sesqui-carbonate was used to extract salts. This solution works very slowly but is best suited to objects which are fragile and patinated and at the same time suffering from the presence of salts. This gave satisfactory result. Ammonium hydroxide 5 per cent. was used to remove oxides and to convert insoluble cuprous chloride into soluble cupric chloride.

(5) 5 per cent. caustic soda solution was used to decompose insoluble oxychloride incrustation and to dissolve cupric chloride.

(6) Sesqui-carbonate treatment with 5 per cent. concentration was repeated till negative test was obtained for silver nitrate solution.

(7) Distilled water washing was done in order to remove the last trace of chloride salt which rendered formidable trouble during the process. When the incrustations were removed, the surface of the object looked as if it were collection of capillary tubes which are bound to retain salts particularly chlorides. These chlorides were removed by washing the object with several changes of distilled water which helps to flush the capillaries.

(8) The object was finally dried by passing it in a bath of Acetone and later on in an electric oven heating upto a temperature suitable for the purpose.

Consolidation

When the object was completely dry, consolidation was carried out with polymerised Venyl resin of adequate concentration. This treatment imparted new strength to the object. Even after cleaning and conservation, the object may be subject to the forces of deterioration. So, the only means to protect it from further deterioration is to coat the object with some protective coating which is not permeable to moisture and acid. In this case, methyl metha crylate of least viscosity was used.

The Patina which was feared to be lost during the process of treatment was preserved satisfactorily.

Restoration

The process of conservation is incomplete without restoration of the missing parts. It is essential because it eliminates the inartistic effect caused by the missing parts, gaps, cracks, etc. Restoration also gives strength and solidity to the object. It is also necessary for restoring pristine harmony of colour, texture and the total effect. The holes, the cavities and the cracks were filled up with a suitable inert synthetic material known as vinyl dough and it was matched in tone with the original. (Pl. XXXI, Fig. 2 & Pl. XXXII, Fig. 2)

Display or storage

Even after conservation and restoration, it is necessary to store or display the object in a healthy condition of temperature, humidity etc. as otherwise, disintegration due to some reason or other may start again. Corroded bronze is particularly susceptible to water, dampness and air-tight enclosure.

This bronze should, therefore, be stored in damp-proof show case. The usual practice of using air-tight show cases should not be followed in this case. The show case must be provided with breathing holes with cotton plugs through which filteration of dust and other unwanted things may take place.

In fact, display is an art of compromise between many principles and essential considerations—such as protection, preservation, systematic presentation and educational set up.

(Bk) Y-1—9 (Mono)

OBITUARY

LATE DR. B. SUBBA RAO, M. A., LL. B., PH. D.

It is with a deep sense of regret that we take note of the premature sad demise of Dr. B. Subba Rao, the Head of the Department of Archaeology and Ancient History of the M. S. University of Baroda, who passed away at Vijayawada on 30th May 1962 while he was returning to Baroda.

Dr. Subba Rao started his career at the M. S. University in 1950 after taking his Ph. D. from the University of Bombay. He was thus associated with the M. S. University for more than a decade during which period he carried on explorations on Mahi and conducted several excavations in the Gujarat State (Baroda, Langhanaj, Vadnagar, Somnath, Amra, Devnī Morī, Śāmalājī) and in M. P. (Maheshwar, Navada Toli).

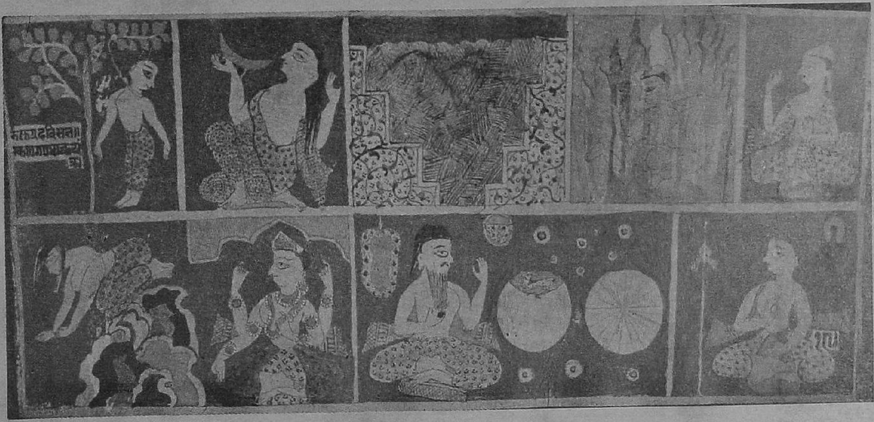
Author of "Personality of India", two independent excavation reports and several articles, Dr. Subba Rao was well-known in the field of Prehistoric Archaeology.

His knowledge and enthusiasm were responsible for the growth and development of the Department of Archaeology of the M. S. University. His untimely demise at the age of 39 is a great loss to the field of Archaeology, particularly in Gujarat and generally in India.

May his soul rest in eternal peace.

PRINTED AT THE GOVERNMENT PRESS, BARODA.

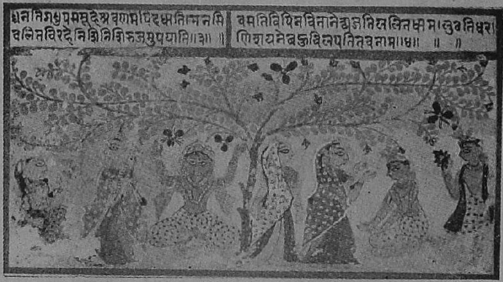
1. Illustration to a Sangrahaṇī Sūtra Ms. in Dayāvimalji Jain Jñāna Bhaṇḍār, 2nd half, 16th century A.D.



2. Illustration to a Sangrahaṇī Sūtra Ms. dated 1583 A.D. from Dayāvimalji Jain Jñāna Bhaṇḍār,

3. Illustration to a Sangrahaṇī Sūtra Ms. in Dayāvimalji Jain Jñāna Bhaṇḍār, 2nd half, 16th century A.D.

1. Illustration to a Gīta Govind Ms. in N. C. Mehta collection.



2. Illustration to a Gīta Govind Ms. in N. C. Mehta collection.

3. Illustration to Bālagopālstuti Ms. 16th century A.D.

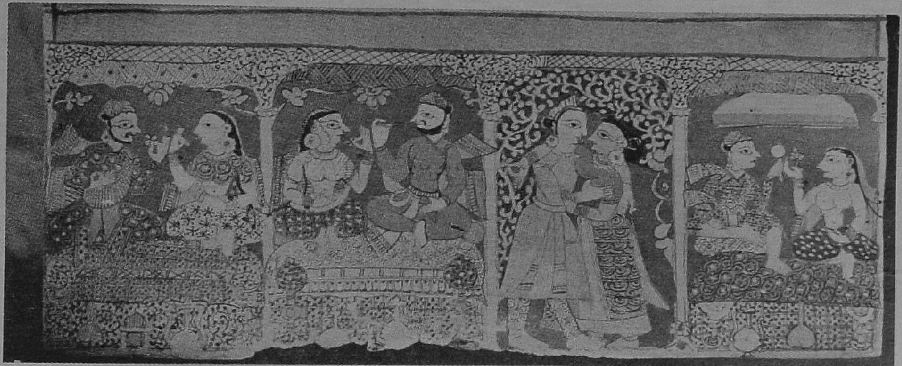
4. Illustration to an Uttarādhyayan Sūtra Ms. dated 1591 A.D.

1. Illustration to an Uttarādhyayan Sūtra Ms. dated 1591 A.D.

2. Illustration to an Uttarādhyayan Ms. dated 1591 A.D.

3. Illustration to a Bhāgvata set in Caura Pañcāśikā style

4. Illustration to an Uttarādhyayan Ms. dated 1591 A.D.



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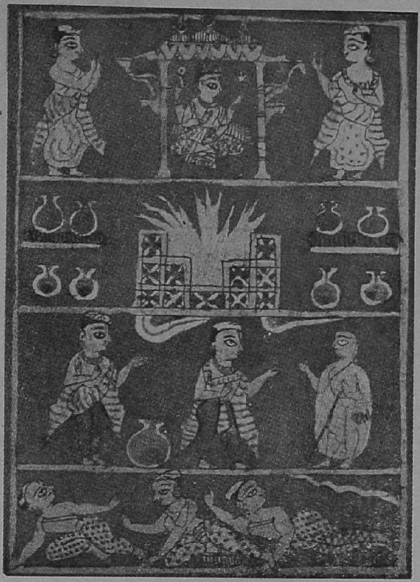
2. Illustration to an Uttarādhyayan Sūtra Ms. dated 1591 A.D.



1. Illustration to an Uttarādhyayan Ms. dated 1591 A.D.

2. Illustration to an Uttarādhyayan Sūtra Ms. dated 1591 A.D.

3. Illustration to a jain Ms. in the Narsinhaji jñān Bhaṇḍār, (Baroda), 17th century A.D.

4. Illustration to a Bālgopālstuti Ms. in the Prince of Wales Museum, Bombay 17th century A.D.

1. Illustration to an Uttarādhyayan Sūtra Ms. dated 1591 A.D.

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3. Illustration to an Uttarādhyayan Sūtra Ms. dated 1591 A.D.

4. Illustration to a Saṅgrahaṇi Sūtra Ms. in Dayāvimalji Jain Jñāna Bhaṇḍār, 2nd half 16th century A.D.

1. Illustration to a Gīta Govind Ms. in N. C. Mehta collection.

2. Illustration to a Gīta Govind Ms. in N. C. Mehta collection.

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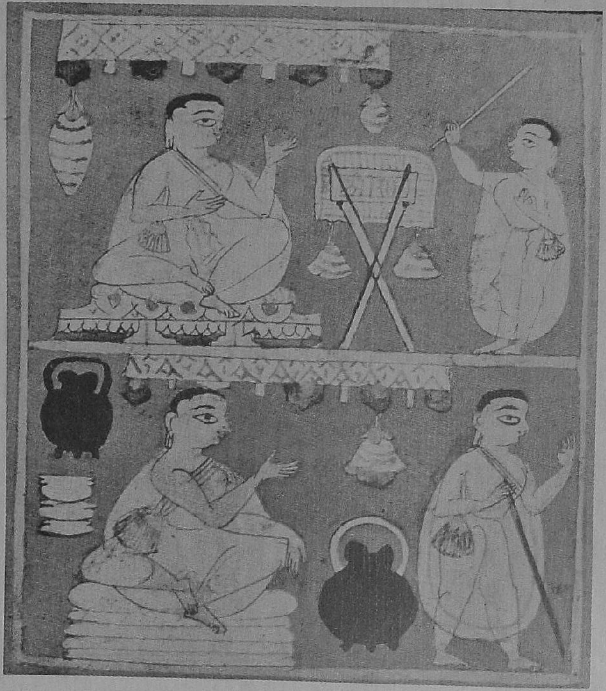
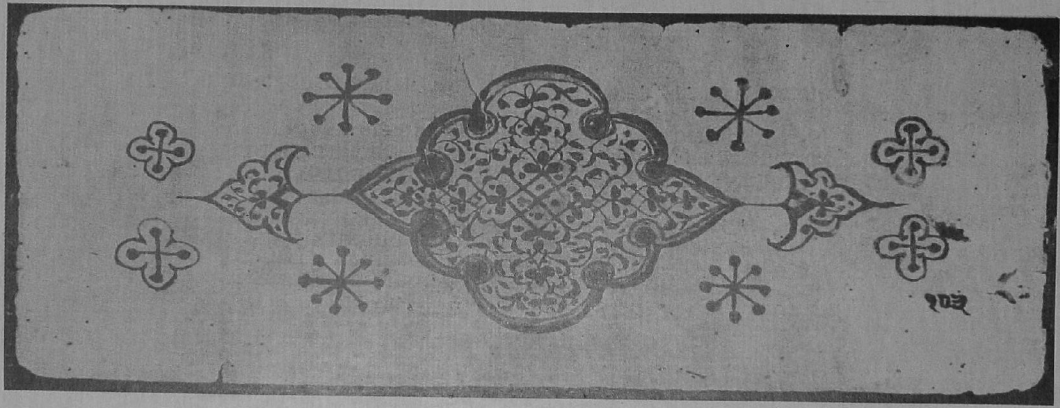
4. Illustration to an Uttarādhyayan Sūtra Ms. dated 1591 A.D.



1. Illustration to an Uttarādhyayan Sūtra Ms. dated 1591 A.D.

2. Illustration to an Uttarādhyayan Sūtra Ms. dated 1591 A.D.

1. Folio 1 of the Abhidhān Chintāmaṇī Nāmamālā Ms. with an illustration of Shāradā (Oriental Institute, Baroda), dated V.S. 1629



2. Back cover page of the above Ms.

Illustrations from the Abhidhān Chintāmaṇi Nāmamālā.

1. Hanumān

2. Lakshmī

3. Brahmā

4. Govardhandhārī

Illustrations from the Abhidhān Chintāmaṇi Nāmamālā.

1. Sarasvatī

2. A Paṇḍit

3. Antahpura dutī

4. Krishṇa Vāsudeva

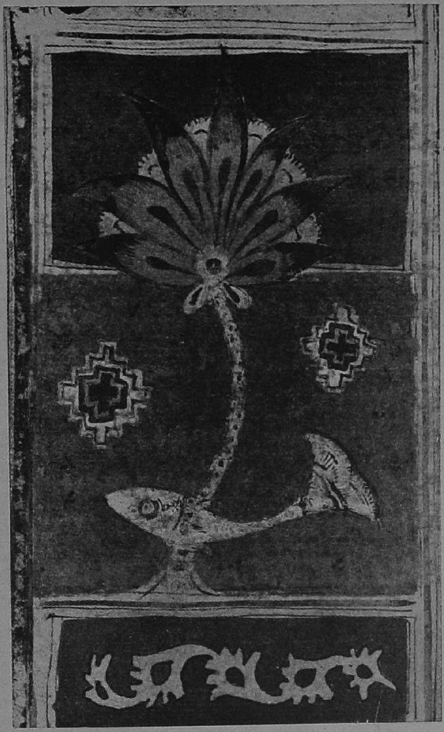
Illustrations from the Abhidhān Chintāmaṇi Nāmamālā.

1. Dvandva

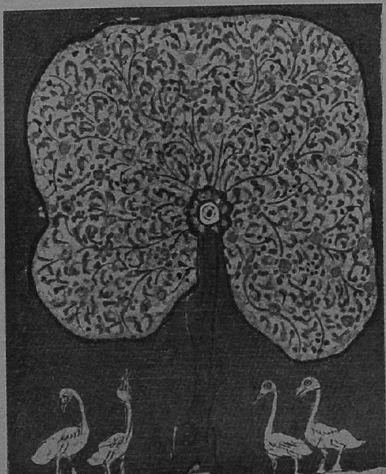
2. Rāvaṇa

3. Putalikā (Painted doll).

Illustrations from the Abhidhān Chintāmaṇi Nāmamālā.



1. A red lotus.



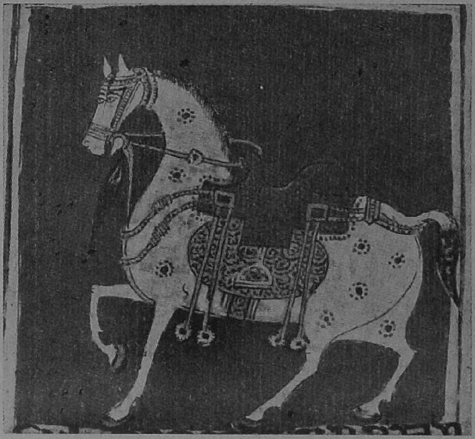
2. A Pālaśa tree

3. An elephant.

Illustrations from the Abhidhān Chintāmaṇi Nāmamālā.

1. An ox

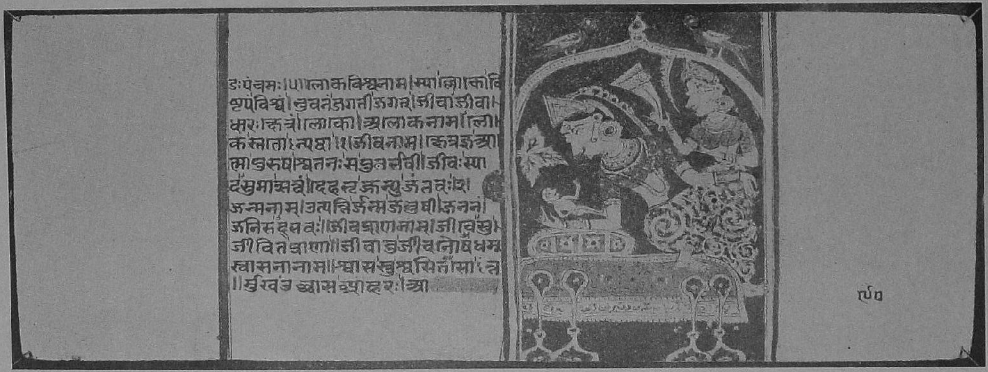
2. A sheep, a she-goat and a bitch.



3. A horse.

Illustrations from the Abhidhān Chintāmaṇi Nāmamālā.

1. Āchārya Hemachandra.



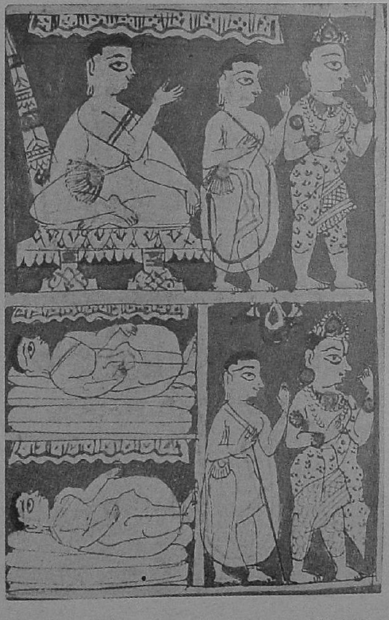
2. Mother and Child.

Illustrations from Abhidhān Chintāmaṇi Nāmamālā and Uttarādhyayan Sūtra.

1. Questioning by hand gesture (Nāmamālā)

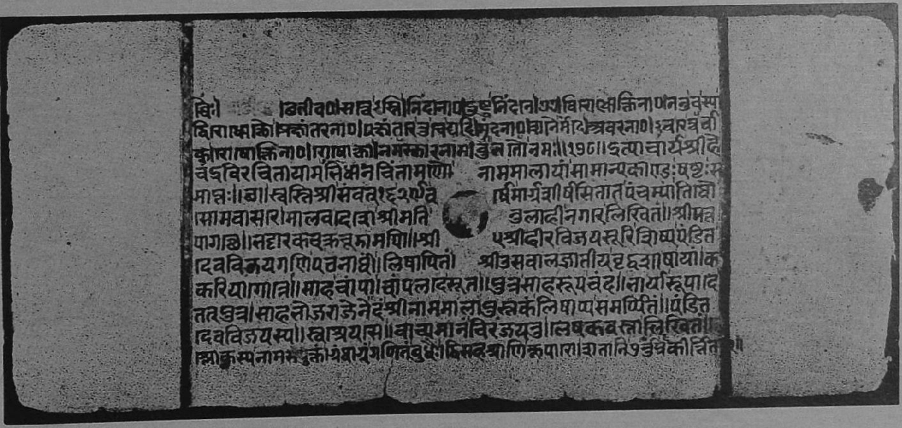
2. Arishṭanemi as a perfect being and Rājimatī's awakening (U. S.)

3. Mahāvīra preaching Layman (preaching ?) (U. S.)



4. Kinds of Carelessness (?) (U. S.)

1. Colophon on the last page of U. S. dated V. S. 1647 (1591 A.D.)



2. Last page of Abhidhān Chintāmaṇī Nāmamālā containing the colophon dated V. S. 1629

1. Standing Gaṇeśa, Śāmalāji

2. Dvārapāla, Śāmalājī

1. Śaṅkha Nidhi, Śāmalājī.

2. Kubera—Śāmalāji.

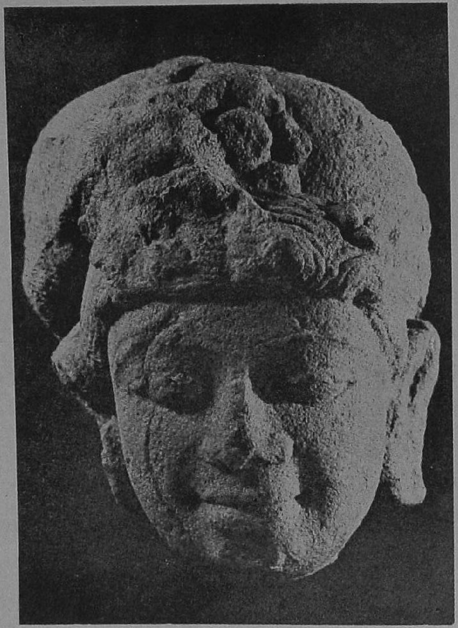
3. Gaṇa—Śāmalāji.

4. Kubera—Śāmalāji.

1. Sālabhañjika under a tree from Karvan (Baroda district) later half, 12th century A.D.

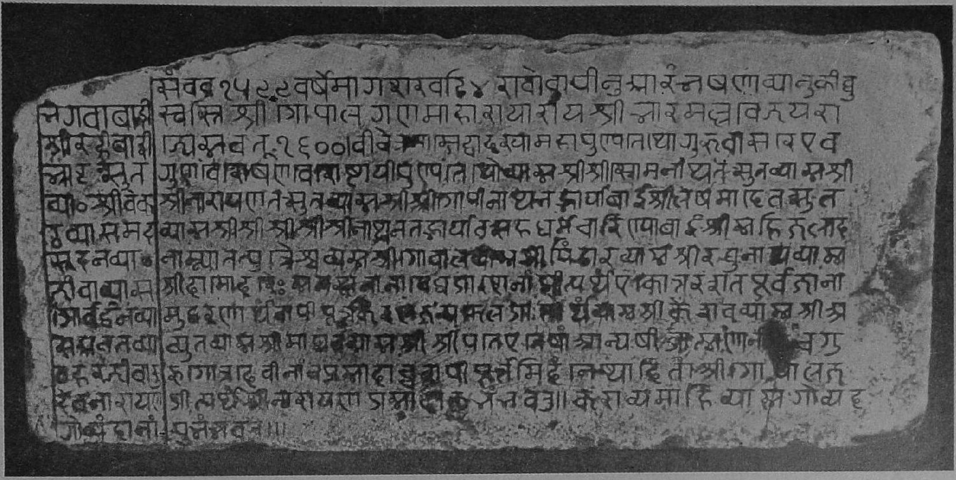
2. Sālabhañjika from Kārvan (Baroda district), later half, 12th century A.D.

Pl. XXI

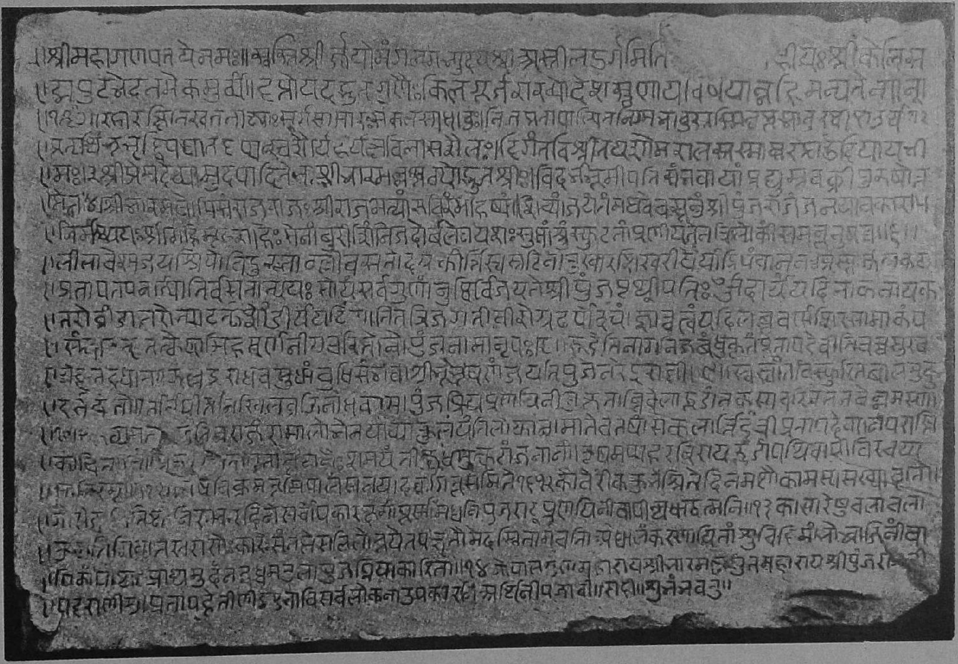


1. Head of a woman, Karvan (Baroda District) Ca 8th - 9th Centuries A.D.

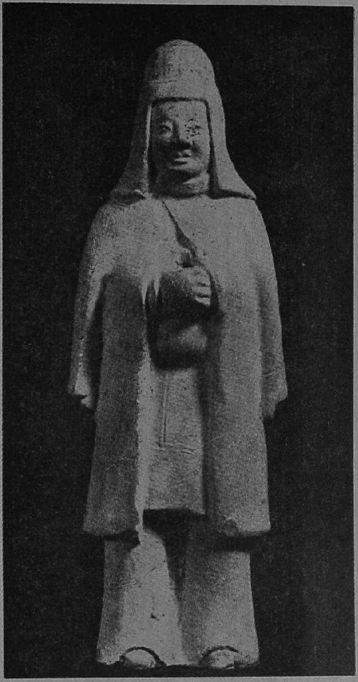
2. Back view of the head-gear of Fig. 1.



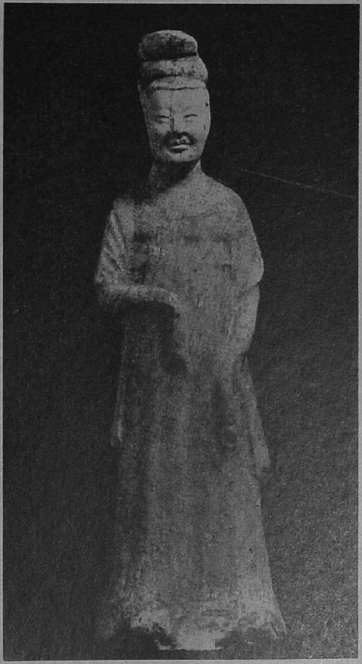
1. Stone- inscription dated V. S. 1600 (1543-44 A.D.) recording the digging and completion of a step-well, from Sābarkāṇṭhā District, Gujarat.



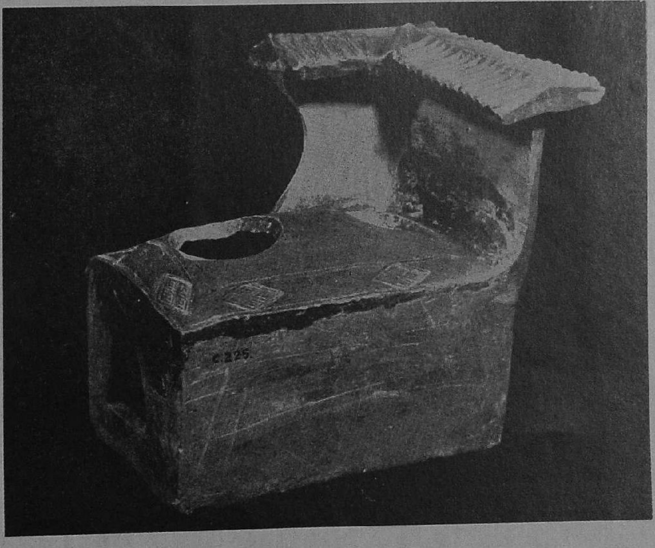
2. Stone inscription dated V.S. 1612 (1555-56 A.D.) recording the Construction of a well by Pratapde, the queen of Punjaraj, from Sābarkāṇṭhā District (Gujarat).



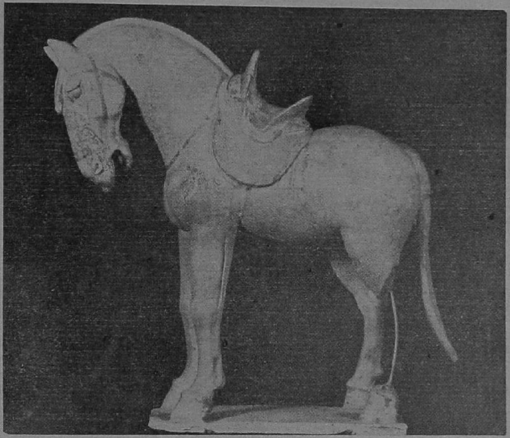
1. Man in winter costume. Chinese terracotta from North of Honanfu, Han Dynasty (206 B.C.-220 A.D.)



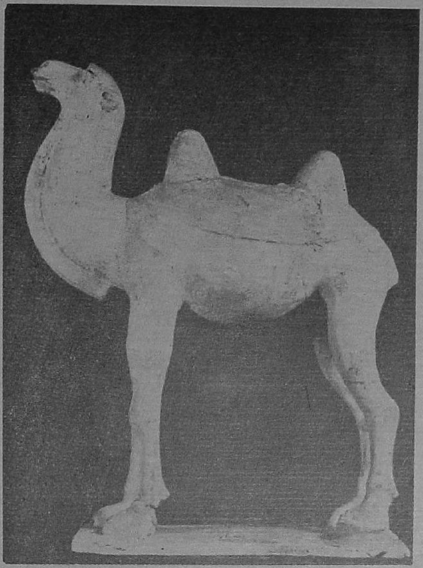
2. Lady. Chinese terracotta from North of Honanfu, T'ang dynasty (618-907 A.D.)



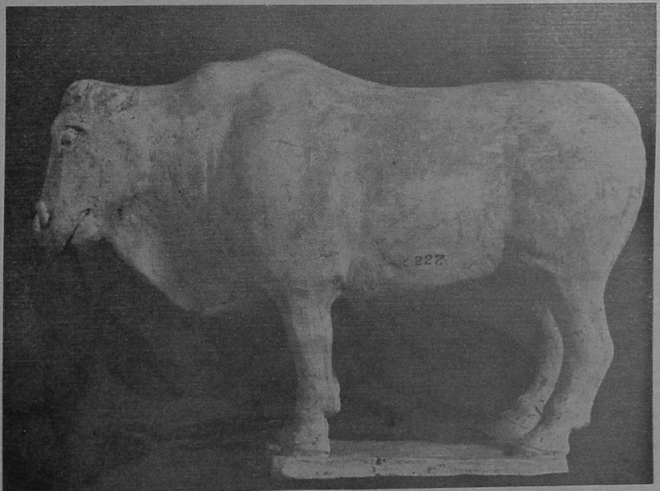
3. Stove. Chinese terracotta from North of Honanfu, Han dynasty (206 B.C.-220 A.D.)



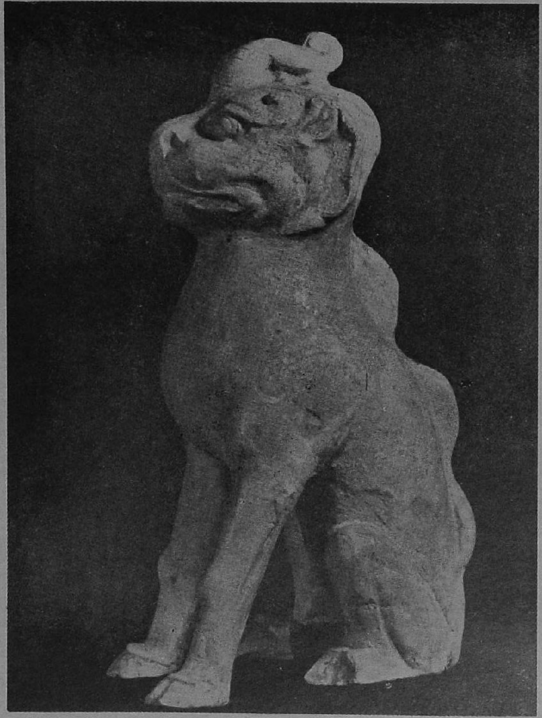
1. Horse. Chinese terracotta from North of Honanfu, T'ang dynasty (618-907 A.D.)



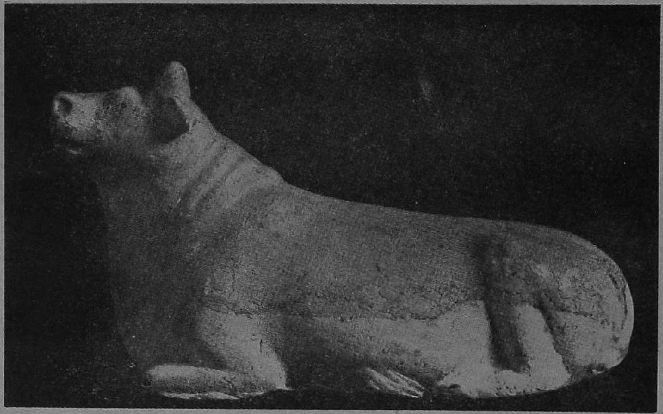
2. Camel. Chinese terracotta from North of Honanfu, T'ang dynasty (618-907 A.D.)



3. Cow. Chinese terracotta from North of Honanfu, T'ang dynasty (618-907 A.D.)



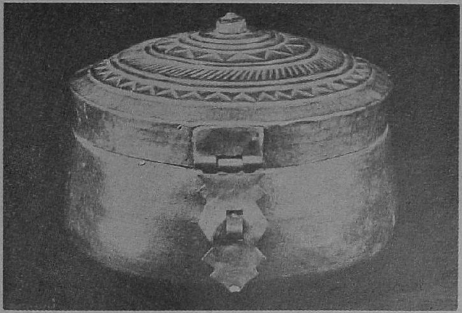
1. Shi-tze (Dog). Chinese terracotta from North of Honanfu, T'ang dynasty (618-907A.D.)



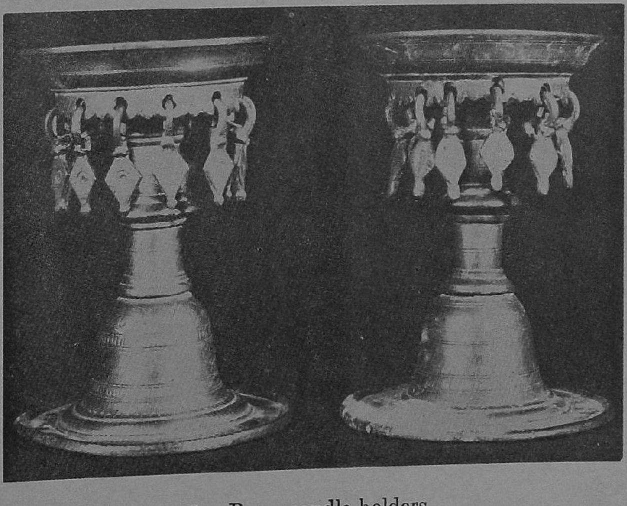
2. Sitting Ox. Chinese terracotta from North of Honanfu, T'ang dynasty (618-907A.D.)

3. Ram. Chinese terracotta from North of Honanfu, T'ang dynasty (618-907A.D.)

1. Three legged brass box for sweets (Ḍabaro)

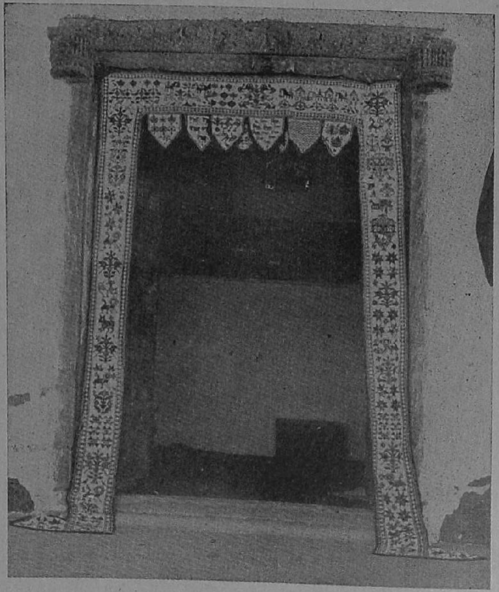


2. Brass box for sweets (Ḍabaro)



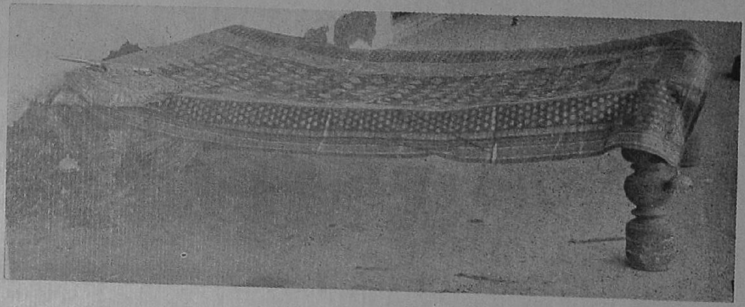
3. Brass candle-holders.

4. Metal support for knees (Ḍhīnchaṇiuṅ)



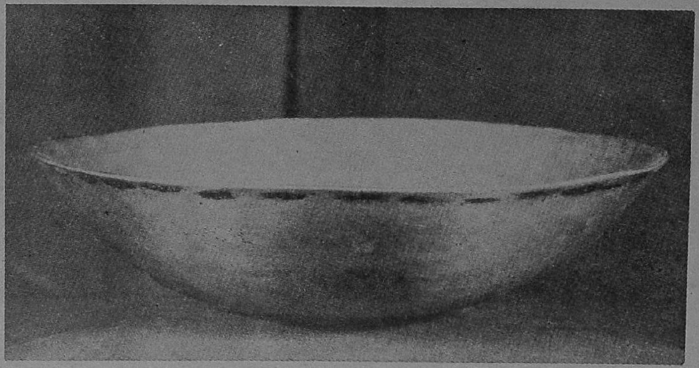
1. Toraṇa of small beads of various colours decorating the exterior of the main-door.

2. Interior decoration showing the *Māṅd* embroidered *Chaklās* etc.

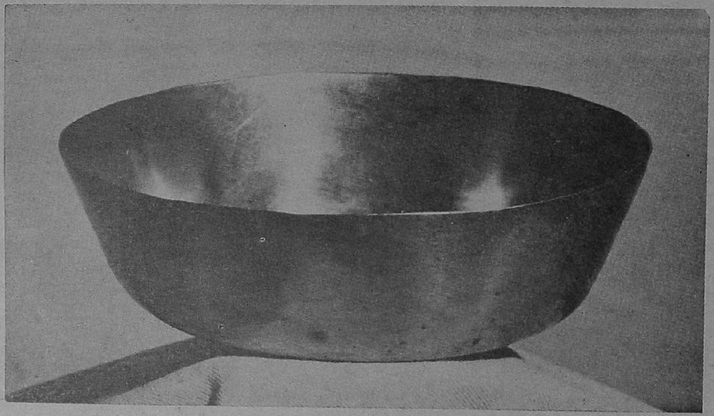


3. A small bed (*Ḍholaṇī*) with a bed cover having various designs.

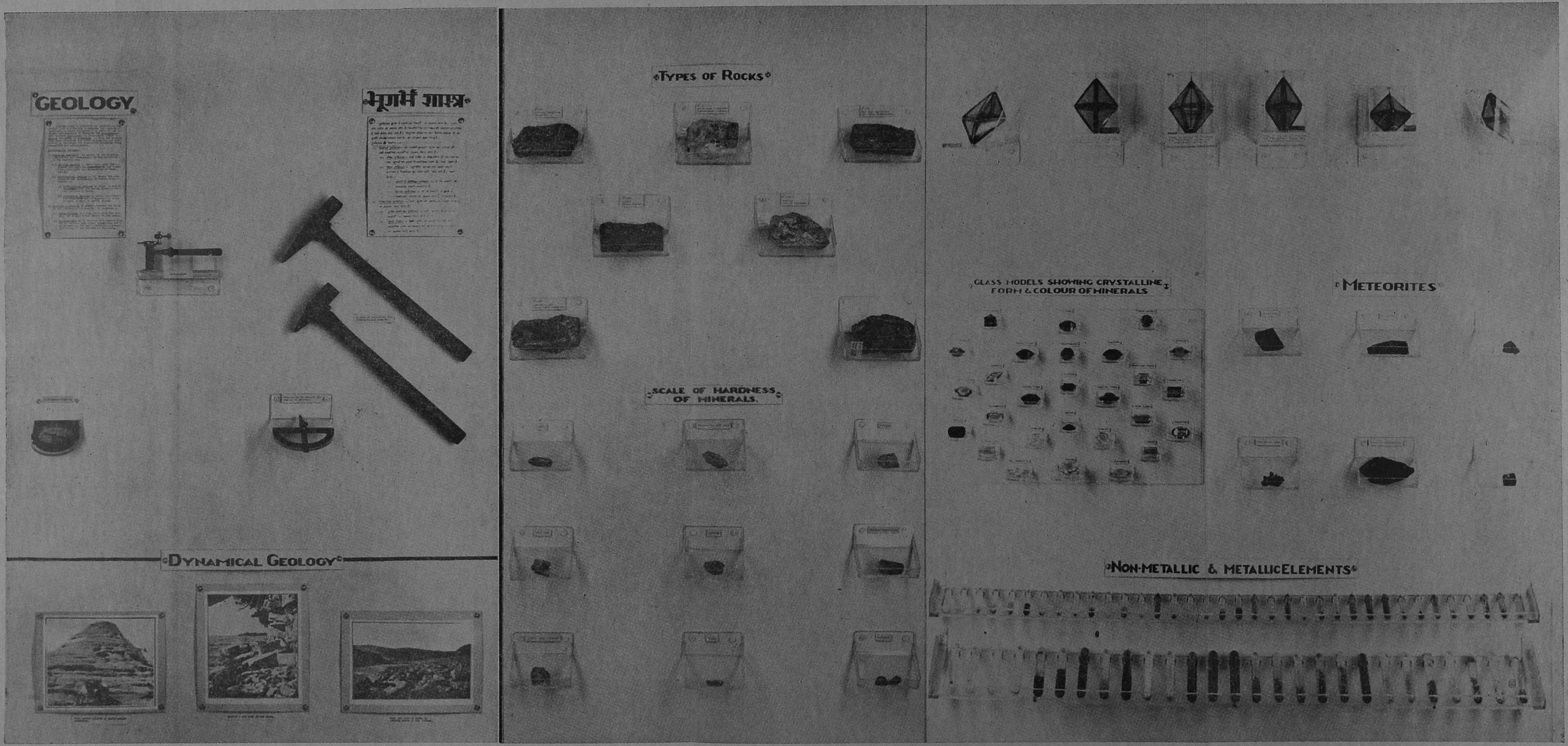
1. Bride-groom going for marriage on a well-caparisoned horse.



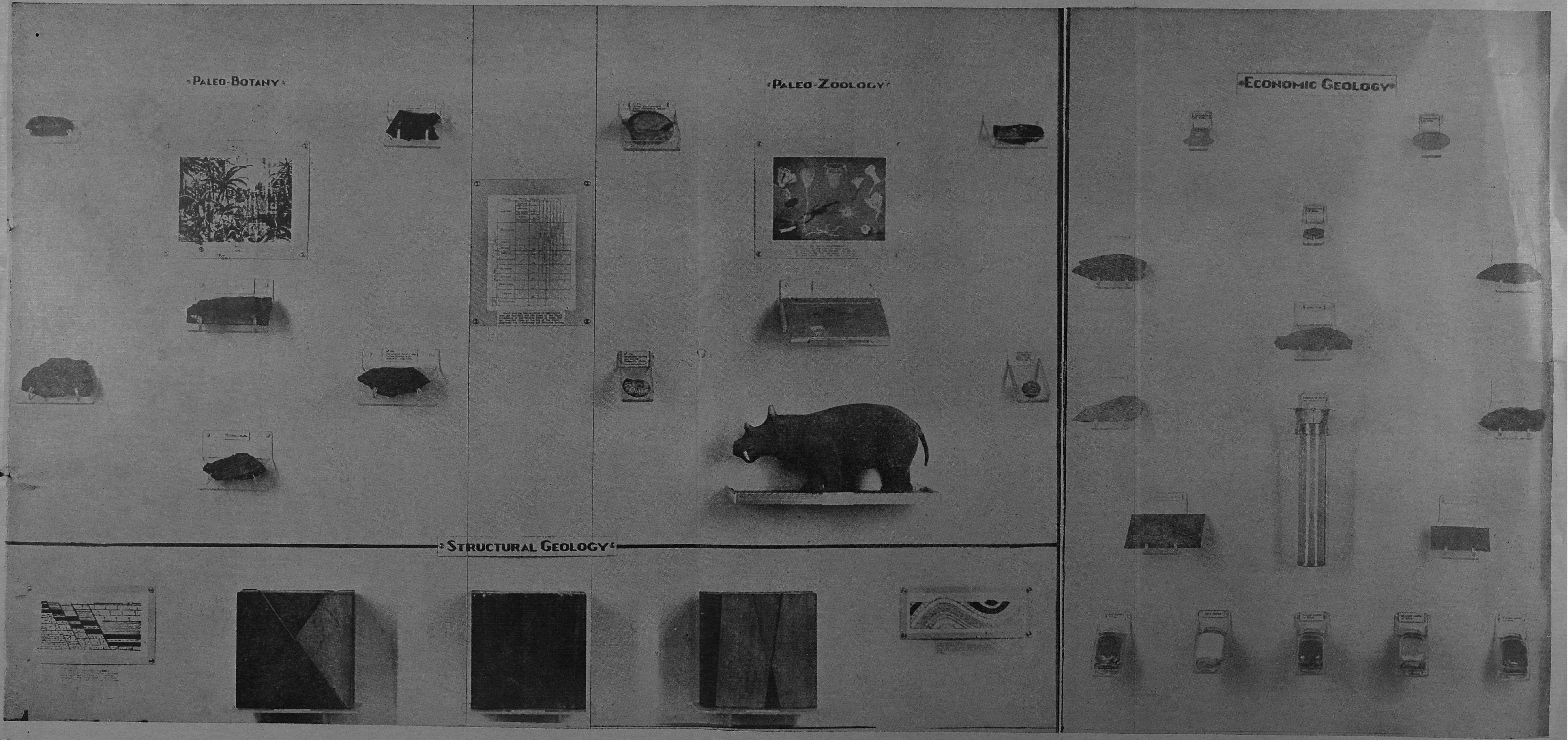
2. Round bottommed vessel (*Tāṅsalī*) for whey or curry.



3. Flat bottommed vessel (*Tāṅsalī*) for whey or curry.



A general view of the display of exhibits in the newly prepared show-case of Introductory Geology.



A general view of the display of exhibits in the newly prepared show-case of Introductory Geology.

1. Side-view of a bronze image before chemical treatment.

2. Fig. 1 after chemical treatment.

1. Front view of a bronze image before chemical treatment.

2. Fig. 1 after chemical treatment.